Valedictory Presidential Address,

BEING

OBSERVATIONS ON THE TOXÆMIAS OF PREGNANCY, AND ON EUGENICS FROM THE OBSTETRIC STANDPOINT.

Delivered before the Section of Obstetrics and Gynæcology of the Royal Society of Medicine on July 3rd, 1913,

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GENTLEMEN,—Eugenics, or the well-being of the race, is now one of the prevailing instincts of our generation. The value of the potential mother and her unborn babe as a national asset is becoming increasingly recognised. I propose to examine the subject very shortly from the medical and the social point of view.

I. THE MEDICAL IMPORTANCE OF EUGENICS FROM THE OBSTETRIC STANDPOINT.

The crux of the whole question is the safety of the mother and child during pregnancy, labour, and the puerperium. The fact that over 3000 women (3179 in 1909) die every year in England and Wales from puerperal septic disease and accidents of childbirth, and that in the same year 99,430 infants died during their first year of life, and that in addition there were about 19,000 stillbirths, make this statement a self-evident truth. To lessen this terrible death-rate is the chief *raison d'être* of the Royal Society of Medicine, and more especially of its Obstetric Section.

It will not be possible to speak now of many of the causes of this maternal and infantile mortality, but I would like to say a few words on the efforts being made to unravel the pathological mysteries of the toxæmias of pregnancy, which directly or indirectly cause a large proportion of this terrible waste of life.

The Toxæmias of Pregnancy.

In my presidential address of October, 1911, I alluded to several diseases both in obstetrics and gynæcology, the etiology or pathology of which was to a large extent undecided, and amongst them I instanced in obstetrics the toxæmias of pregnancy, ectopic gestation, phlegmasia alba dolens, pyelonephritis of pregnancy, and hyatidiform degeneration of the chorion, with its not infrequent sequela, chorion-epithelioma.

As regards the toxæmias of pregnancy I drew attention to the increasing recognition of the fact that investigations should be made by physiological and pathological chemists regarding the autotoxæmias, if our knowledge of the etiology and treatment of hyperemesis gravidarum, chorea gravidarum, albuminuria, eclampsia, acute yellow atrophy of the liver, and puerperal insanity is to be increased. In printing my address the *British Medical Journal*[1] published a leading article entitled "The Return to Chemistry," and THE LANCET[2] also published an article on "Where Chemistry and Medicine Meet," both expressing their cordial concurrence with my views. These articles helped materially to stimulate interest in the subject. There is no doubt that during these last two years more progress has been made in our knowledge of the functions of the placenta and of the function and interaction of the ductless glands, including the ovary and its lutein tissue, than was previously possible. Dr. W. Blair Bell and Dr. Louise MacIlroy, members of our section, have been working on these lines for some years, but a whole army of experts are now engaged in this form of research. If the foreign journals are examined, more particularly the German, it will be seen that this chemical investigation and the effects of injection of glandular extracts upon animals are becoming increasingly prominent.

As further evidence of the interest being now attached to the chemical aspect of the toxæmias of pregnancy, I would allude to the large numbers of books recently published on the internal secretory organs or on the function of the ductless glands, in every case dealing with the influence exerted by the secretions of these organs upon menstruation, pregnancy, lactation, and the puerperium in both animals and man.

The clear advice in the Report of the Royal Commission on the University of London as to the need of the perfect equipment of "the hospital unit" is only another indication that it is now being generally recognised that clinical work can only be scientifically and satisfactorily carried on if the medical officer in charge has at his disposal laboratories suited for the complete examination, treatment, and demonstration of every case. Such laboratories would be devoted to physiology, bacteriology and vaccine therapy, biochemistry, microscopy, X ray and electrical work, and a general laboratory for the students. At our London hospitals all these laboratories to some extent already exist for the general use of the staff, except perhaps the bio-chemical laboratory as a separate entity, and it is this particular method of research which, in my opinion, is now the most important desideratum for the efficient and scientific management of every obstetric and gynæcological hospital unit.

Another innovation which points in the same direction is the constitution for the first time of a Subsection of Chemical Pathology, apart from the Section of General Pathology, at the Seventeenth International Congress of Medicine to be held in London next August. I would like to see such a subsection in the Royal Society of Medicine.

Much has been done by bacteriology to explain puerperal septicæmia, as well as various local and general infections such as gonorrhœa, bacilluria, syphilis, pyelitis of pregnancy, &c., but physiological chemistry is now needed to help. In general medicine microbes do not explain gout, diabetes, Graves's disease, Hodgkin's disease, or even rheumatoid arthritis. Physiology has unravelled some of the mysteries of myxœdema, acromegaly, and Addison's disease, but none of these diseases can be fully explained without further light from physiological chemistry. In our own special subjects microbes do not sufficiently explain eclampsia and the other toxæmias of pregnancy. Our ignorance of the causation of puerperal albuminuria and eclampsia, acute yellow atrophy of the liver, hyperemesis gravidarum, chorea of pregnancy, and puerperal insanity is still profound.

It is now well established that in addition to the physiological functions of the placenta, the ovaries, and the mammary glands, these organs have important internal secretions which may be either neutral, toxic, or antitoxic under different circumstances.

The Placenta.

Much excellent work has been done of late on the chemical physiology of the placenta. It seems clear that ferments are produced by the trophoblastic layers of the chorionic epithelium of the placenta and that these exert a destructive action upon the surrounding maternal tissues. By this action toxins are apparently normally produced and autotoxæmia may result under circumstances at present unknown to us. These enzymes or ferments can be demonstrated according to Abderhalden in the blood of pregnant women from the sixth week of gestation to a fortnight after delivery, and their presence provides us with a method of serum diagnosis of pregnancy, which Dr. Herbert Williamson considers absolutely reliable. With the object apparently of neutralising these toxins and of preventing autotoxæmia by rendering the woman immune, antibodies are formed, and are found in the maternal blood between the sixth and fourteenth weeks of pregnancy, the period of the maximum destructive activity of the chorionic epithelium.

Mosbacher[3] has also shown that syncytial cell albumin of the early human placenta contains a toxin which is able to produce fatal anaphylaxis in guinea-pigs in 30 minutes, but he finds that antibodies which neutralise the syncytial toxin are found in the blood of pregnant women right up to the end of the gestation period.

These toxins have not yet been isolated, nor is their chemical composition known with any more certainty than in our student days, so that we do not even know if Abderhalden and Mosbacher are speaking of the same toxins.

[1] Brit. Med. Jour., Oct. 28th, 1911, p. 1118.
[2] THE LANCET, Oct. 14th, 1911, p. 1085.
[3] Deutsche Medicinische Wochenschrift, No. 22, June, 1911, p. 1021.

Acidosis in Pregnancy Toxæmia.

The importance of the phenomena of acidosis in pregnancy toxæmia, on which Dr. Walter C. Swayne read a paper to our section last session, has led to much attention being paid to that aspect of the question. In an article published in THE LANCET,[4] Dr. Herbert Williamson further discusses the problem of the diagnosis of the albuminuria of pregnancy, and considers that we are justified in concluding that a condition of acidosis is found constantly in severe cases of pregnancy toxæmia and not in cases of severe chronic nephritis unless toxæmia has been superadded. If this be so it is a great gain to our previous knowledge on the subject, and clears the line for further discoveries and for more intelligent methods of treatment.

That members of our section have been able, with the assistance of their colleagues skilled in chemical pathology, to arrive at such valuable conclusions, cannot but make our section proud of the work being done by its members.

Internal Secretion of the Ovaries and of the other Ductless Glands in their Relations to Obstetrics.

The physiology of ovarian secretion was discussed during last session by Dr. Louise McIlroy in a most valuable contribution, and during this session Dr. Blair Bell, in the Arris and Gale lectures at the Royal College of Surgeons of England,[5] has added some valuable facts and suggestions to our knowledge of the genital functions of the ovaries and of the other ductless glands. He dwelt especially upon the effect of removal or disease of the thyroid, the pineal, the pituitary, the thymus, and the suprarenal glands upon functions of the ovaries and the uterus. He further dwelt upon the organic harmony in health of the ductless glands in regard to the genital functions, and upon their altered interrelations in disease. A valuable review by Dr. Louise McIlroy[6] has brought our knowledge of ovarian secretion up to date.

The council of our section has arranged for a discussion to be held at the November meeting, when a paper will be read by Dr. Blair Bell on the Functions of the Ovary and their Relations to Obstetric and Gynæcological Disorders and Procedures, and Dr. Louise McIlroy has been invited to open the subsequent discussion.

As regards the action of the internal secretions of the ductless glands, it is now established that there is not only an organic and functional harmony between them, but a compensatory interaction between all the glands as well. Each gland acts in a particular manner upon the blood stream passing through its tissues, altering its chemical constitution by a chemical process, and often adding to it important organic bodies of vital importance to the well-being of the individual. If any organic disease or abnormality exist in a particular gland, the missing or altered function seems often to be taken on by other ductless glands, so that the individual is saved from disaster. In other cases the altered metabolism of one gland upsets the normal metabolism of other ductless glands, and the individual is seriously affected.

The significance of the whole subject of internal secretion is enormous, and its full recognition is still in its infancy. Dr. Blair Bell in his Arris and Gale lectures said: "It is probable that every cell in the body is a ductless gland and has some influence on the life and functions of the rest." If so, it is easily seen how groups of functionally similar cells can, by forming organic products, act as chemical messengers, or "hormones," as Dr Ernest H. Starling has called them, and influence the whole body organisation. Dr. Blair Bell has also proved in the above lectures that these hormones exert a special influence upon "the reproduction of the species in all its intricate necessities." When the ovaries and the other reproductive organs atrophy and become functionally inactive he considers that "the genital functions of the rest of the ductless glands cease, and the rearrangement of the metabolism that follows produces what are known as the symptoms of the menopause." He suggests that a knowledge of the special function of each of the ductless glands, and a close study of the particular menopause phenomena in each case may enable us to treat the symptoms with more success than at present. To treat all the ills of the menopause with ovarian or lutein extract when the symptoms point to the effects of altered metabolism of another ductless gland is not logical.

Lactation.

The physiology of lactation is getting much light thrown upon it by physiological chemistry. It has long been known that lactation is not determined by nerve excitation. A case of my own, where normal parturition and lactation followed complete paraplegia below the fifth dorsal vertebra from an accident six months previously, confirmed this. Recently Professor E. A. Schäfer, F.R.S.,[7] showed experimentally that mammary secretion is induced as the result of galactogogue hormones circulating in the blood derived from the posterior lobe of the pituitary body, from the corpus luteum and from the involuting uterus, and from the lactating mammary gland itself, whilst hormones derived from the placenta and the fœtus during pregnancy have an inhibitory effect.

II. THE ENDOWMENT OF MOTHERHOOD.

The nation, in common with all civilised nations in these days of a lessening birth-rate, is waking up to the realisation that a pregnant woman and her unborn babe form a national asset worthy of every care and consideration.

We hear much nowadays of the "endowment of motherhood." To our section have been transmitted the traditions of both its amalgamating predecessors. The Obstetrical Society of London, by its successful efforts spread over 50 years to improve the condition of lying-in women and to lessen infantile mortality, has done much to endow motherhood in its truest and most comprehensive sense. The "endowment of motherhood" is not only to be obtained by providing financial assistance to the mother, as is done, for instance, by the maternity benefits of the National Insurance Act after labour. The chief aim of those seeking to endow motherhood should be to give every mother an assurance of security and well-being during the whole time of pregnancy, labour, and the puerperium, each of which is to her a period of anxiety and stress.

Apart also from all sentiment or sympathy with the individual, "the unmarried mother and the unwanted child," as Harold Begbie phrases it, demand both our professional consideration and the protection of the State.

During the Pregnancy.

This security should be ensured during the pregnancy by skilled professional advice followed by wise, tactful supervision. For the professional advice to be really effectual a sufficient and in many cases a pelvic examination of every pregnant woman should be made during the middle months of gestation, especially if she be a primigravida. Her urine should be scientifically examined, especially as regards albumin and acidosis. If she has also had abortions or still-births the quantity of urea should be estimated. If evidence be forthcoming that toxæmia is present, or that labour may be abnormal or difficult, the practitioner should be able to arrange for the woman to continue under expert supervision. This is difficult, even in private practice, but almost impossible under our existing conditions as regards the poorer classes. Dr. J. W. Ballantyne's[8] suggestion of a prematernity or pregnancy ward or pavilion seems the best way of meeting the case. The necessary treatment could then be carried out. If surgical treatment were required it could either anticipate or accompany the onset of labour as occasion demanded, instead of being adopted, as it often is now, as an emergency operation, after repeated pelvic examinations or instrumental attempts at delivery before admission.

We know that "pregnancy wards" reduce the risk of all obstetric operations enormously; Cæsarean section, for instance, has its maternal mortality reduced from 34·3 per cent. in cases previously examined, &c., to 2·2 per cent. in clean cases such as those who have been inmates of a prematernity ward.[9] Paul Bar[10] shows that in placenta

[4] THE LANCET, May 17th, 1913, p. 1363.
[5] THE LANCET, vol. i., 1913, pp. 809, 937.
[6] Journal of Obstetrics and Gynæcology of the British Empire, May, 1913.
[7] Address delivered before the Liverpool Medical Institution, March 6th, 1913.
[8] Brit. Med. Jour., Nov. 1st, 1901, p. 813.
[9] Routh, Amand, Journal of Obstetrics and Gynæcology, vol. xix., 1911, p. 48.
[10] Archives mensuelles d'Obstétrique et de Gynécologie, Ann. 1., No. 10, pp. 162, 176, 1912.

prævia cases, out of 108 patients treated as "emergency cases" he had 10 deaths from infection, whereas no deaths occurred from this cause in 48 cases in the prematernity wards. Routine examination during the middle months of pregnancy is now adopted at many of our lying-in institutions when women enter their names for admission, though unfortunately statistical evidence of its value is not available. To ensure full security, however, to such women suitable pre-maternity wards must be provided throughout the country.

From the point of view of the unborn child, routine examination of the mother during pregnancy and adoption of appropriate treatment are essential if we are to have any success in dealing with intra-uterine mortality. Eugenics should begin before birth, not afterwards. A child has the right to be born healthy. Careful inquiry should be made as to the causes of previous abortions or stillbirths, or of the deaths of previous children soon after birth, for I am convinced that congenital syphilis, entirely unsuspected, is not infrequently the cause of both fœtal and early infantile mortality. As small doses of mercury given to the woman during pregnancy will in such cases often give her a healthy child, every effort should be made to tactfully discover whether such treatment is indicated. It must be remembered that apart from a history of stillbirths, &c., a woman may show no indication of specific infection. Sometimes information can be obtained by inspecting the mother's other children. There is no doubt that apart from congenital syphilis, which varies in importance in different nationalities and even in different localities (urban and rural), the three main causes of stillbirth are the auto-toxæmias, pelvic contraction, and malpresentations.

It has been computed that if women were properly examined in pregnancy half the stillborn children would be saved. If so, this would mean an annual saving of nearly 10,000 fœtal lives in England and Wales for, omitting abortions, there were 2312 stillbirths notified in London alone during 1910, or 2·2 per cent. of the total births. If this proportion holds good for England and Wales the number of stillbirths in that year would be 19,736, and we could hope to save 9800 lives by routine prophylactic measures.

Chambrelent[11] has a large clinique for pregnant women in Bordeaux, and he there examined 642 pregnant women during 1910. He found that 135 women—i.e., 21 per cent.—presented complications or abnormalities requiring special care, and as a result of such care the birth mortality was reduced to 2·85 per cent., or a saving of two-thirds as compared with the official figure.

The registration of births should, in my opinion, be compulsory, not only after "viability" as regards births and stillbirths, but should be enforced at every period of pregnancy. If this were done, and the practitioner or midwife were also requested to state the apparent cause of the death or of the expulsion of the ovum, we should, as a first result, begin to realise how little we know of the causes of intra-uterine mortality, and as a second result we would obtain some statistical evidence of the huge waste of life continuously going on, and in time would arrive at some precise knowledge as regards etiology and prophylaxis.

Much good might be done by a careful examination, both of the fœtus, placenta, and membranes, in all abortions and stillbirths in our hospitals. This would accustom the student to that particular type of investigation and might encourage a continuance of it when in private practice later on. This plan of routine examination was adopted in 180 consecutive cases of stillbirth by Dr. Herbert Spencer between 1887 and 1900, and his paper of nearly 100 pages[12] is one of the most valuable and suggestive in our annals, showing amongst other things how hæmorrhages into the brain and other organs were a frequent cause of death during labour.

During Labour.

Skilled assistance during labour by registered midwife or medical practitioner is now within the reach of every woman either in her own home or in a lying-in ward or hospital.

There is no doubt that the prospect of obtaining the 30*s.* maternity benefit under the National Insurance Act enables poor women to approach the time of labour with a greater sense of security than heretofore, and if some arrangement or pre-arrangement could be arrived at by which the benefit could be paid as soon as the birth was notified its advantages would be very much greater. Expert or hospital treatment can usually also be secured if special surgical interference be required.

During the Puerperium.

During the puerperium, however, there is often little or no skilled supervision after the first ten days, and the early cessation of supervision tends to encourage the mother to return to work and to married life at a much too early date. The early return to work is the cause of much maternal illness, which is often pelvic, and leads to either a disinclination for, or even to a dread of, future pregnancies, or to real physiological inability to conceive again, or to intra-uterine fœtal death if pregnancy should again supervene. The child too often suffers, even more than the mother, from the latter's early return to work. Errors of diet, neglected ophthalmia, or uncleanliness may each cause permanent ill-health.

Much is being done in large cities, where factory girls are numerous, to encourage rest during the earlier period of uterine involution, and the medical and sickness benefits of the National Insurance Act further encourage this, but much more requires to be done.

Schemes to provide home nursing for insured persons by arrangement between local nursing associations and Approved Societies are now being organised and bid fair to be very successful. Approved Societies and Insurance Committees have the power under the Act "to grant subscriptions for the support of district nurses," and Queen Victoria's Jubilee Institute for Nursing the Sick Poor, and town and county district nursing associations throughout the country, acting in harmony with these Approved Societies and with the Central Midwives Board, are doing much, and can do much more, to lessen the risk of maternal illness and infantile mortality during the few weeks following labour.

Infantile mortality under one year of age in England and Wales was 163 per 1000 in 1899 and is now under 105. This represents a saving of life of over 52,000 infants per annum. Very much, however, remains to be done, for in 1909 there were 99,430 deaths of infants in England and Wales under one year of age, and nearly 40,000 of these died in the first month of life. Out of 1000 births 11·5 children die in the first 24 hours of life, 24·6 infants in the first week, 30·3 in the first fortnight, and 39·75 during the first month. Roughly speaking, out of every ten children who die in the course of their first year of life four die in their first month.

If the nation could come to look upon maternity as a blessing and worthy of every encouragement and support, and could secure to the newly-born child a month's healthy start in life, many of these babes who now die from the ignorance of their mothers, from unhealthy environment, or improper or insufficient food would survive. It must be remembered, too, that a healthy child who has survived the first month of life has every chance of growing up well, for it is the weakling who dies, not the robust child of a happy healthy mother. Infantile mortality is being greatly diminished in localised areas by organised home visiting and nursing, and by special effort to encourage lactation instead of artificial feeding; and if the nation, as a result of its appreciation of motherhood and of the greater relative value of the life of the newly born, can make these local efforts a national one, and at the same time avoid the moral disaster of pauperisation, the race cannot fail to be improved, and the wealth and stability of our country thereby must be proportionately increased. Our section will not fail to encourage progress in the scientific portions of such an obstetric ideal.

[11] Journal de Médecine de Bordeaux, No. 17.

[12] Transactions of the Obstetrical Society of London, vol. xxxiii., 1891, p. 203.

MOTOR AMBULANCE FOR HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITAL.—A motor ambulance has been generously presented to this institution by the President, H.I.H. the Grand Duke Michael. In coöperation with the London County Council, which is contributing to the cost of maintenance and is arranging for special telephone facilities, the ambulance will be available for street accidents in North-West London, and will be the first motor ambulance for this purpose operating in the metropolitan area outside the City of London.

ŒSOPHAGOSCOPY, LARYNGOSCOPY, AND BRONCHOSCOPY

AS AN AID TO THE DETECTION OF DISEASE AND REMOVAL OF FOREIGN BODIES IMPACTED IN THE FOOD AND AIR PASSAGES.[1]

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RECENT improvements in endoscopic methods of examination have enormously increased our knowledge of morbid affections of the œsophagus, trachea, and upper segments of the bronchial tree, and have greatly facilitated the detection and removal of impacted foreign bodies. In 1868 Kussmaul read a paper before the Scientific Society of Freiburg upon the Examination of the Normal and Pathological Œsophagus with Rigid Tubes, making use of Desormeaux's apparatus for the purpose of illumination. A few years later von Miculicz adapted Leiter's illuminating apparatus—an interior lamp of platinum wire with water-cooling—to Kussmaul's rigid tubes, with the result that much important physiological and pathological work upon the food and air passages was successfully accomplished. To Kirstein, Killian, von Eicken, and Brünings, however, belongs the credit of having systematised and popularised this important method of examination and means of treatment. The problem of how best to illuminate the particular region to be inspected has been notably advanced by the work of Leiter, Caspar, Kirstein, Guisez, and Brünings, all of whom favour the employment of exterior illumination, whereas Einhorn, Chevalier Jackson, and Glucksmann prefer interior illumination.

Œsophagoscopy.

Endoscopic examination of the œsophagus has demonstrated that its course along the front of the vertebral column is practically straight, the various curvatures so frequently alluded to in anatomical text-books being apparently due to post-mortem changes, such as an altered position of the diaphragm, the varying weight of the stomach according to the amount of its contents, and the relaxation of the pharyngeal musculature (Mehnert). The hypopharynx or post-cricoidal pharynx, now generally conceded as ending at the lower border of the cricoid cartilage where the fibres of the inferior constrictor form a prominent fold upon the post-pharyngeal wall, is an extremely important segment of the alimentary tract, as foreign bodies frequently become impacted at its lower end where it is continuous with the œsophagus. The œsophagus proper consists of a cervical and an intrathoracic segment, the former running in the middle line between the vertebral column and the trachea, the latter deviating slightly to the left to reach the extramedian position of the *pars diaphragmatica*. The length of the œsophagus (from the lower edge of the cricoid cartilage to the cardia) varies considerably according to the measurements of different observers. These measurements, as given by von Hacker, are as follows. The average distance from the upper molar teeth to the mouth of the œsophagus in males is 14·9 cm., and in females 13·9 cm.; from the teeth to the bifurcation of the trachea in males 26 cm., and in females 23·9 cm.; from the teeth to the cardia in males 39·9 cm., and in females 37·3 cm. For practical purposes, however, it is advisable that all œsophageal instruments should be capable of being lengthened out to a distance of 50 centimetres. The transverse diameter of the mouth of the œsophagus is about 23 millimetres and the sagittal about 17 millimetres.

Œsophagoscopy should, if possible, be carried out after the patient has fasted for at least 12 hours, and preferably in the morning. The examination, although not a dangerous proceeding, is always an uncomfortable one, and is more easily accomplished in thin and long-necked individuals than in those who are short-necked and muscular.

The question of anæsthesia is undoubtedly a difficult one and open to debate. While some surgeons are content with the induction of a mild degree of local anæsthesia, others prefer general anæsthesia, while a combination of light general with local anæsthesia is advocated by many experienced observers.

Where a simple examination only is to be undertaken, spraying the pharynx and upper laryngeal orifice with cocaine (20 per cent.) and adrenalin (1/1000), equal parts, and swabbing the mucosa of the hypopharynx with the same solution, will as a rule be found sufficiently effective. If, however, any operative interference is contemplated—e.g., the removal of a foreign body, portion of growth, &c.—general anæsthesia preceded by an injection of scopolomorphine and atropine is preferable, and is certainly indicated in nervous individuals and in children.

Position of the patient.—The patient may be examined in the sitting or in the prone position. If in the former he should sit upright upon a low stool (Brünings), with the head thrown slightly backwards and firmly held by an assistant; if in the latter, lying either upon his back (dorsal position) or upon his side (right or left lateral position), with head slightly extended. Should there be an excessive flow of saliva it is advisable to place a saliva pump (connected with the main water-supply) in the angle of the mouth. The œsophagoscope, well greased and warmed, may be introduced with a mandrin by the sense of touch or by ocular inspection without a mandrin. The latter method, although somewhat more difficult, is unquestionably the more exact and scientific, as the eye sees and follows the advance of the tube in its passage downwards. The blind introduction of rigid tubes, bougies, probangs, coin-catchers, &c., is to be condemned, as being highly dangerous and likely to injure, if not to perforate, the walls of the œsophagus. It is essential that the tube be kept in the middle line and passed downwards with care and gentleness, the patient being meanwhile encouraged to put up with the temporary discomfort it causes. Where secretion wells up into the lumen of the tube, frequent drying of the mucosa with cotton-tipped probes or the use of an aspirator is called for.

Foreign bodies, unless embedded in the walls of the œsophagus or covered with granulation tissue, are as a rule easily seen. Their extraction is at times, however, difficult, more especially so in the case of dentures or those with sharp points which become embedded in the mucosa, and unless very carefully handled are apt during extraction to lacerate, if not to perforate, its walls. To obviate this difficulty it may be necessary to "turn" the foreign body so that any sharp edges it may possess point downwards, or to employ some such instrument as Hill's expanding œsophagoscope, which when opened out around the foreign body enables extraction to be accomplished without injury to the surrounding walls. Impacted foreign bodies should be extracted before inflammatory symptoms supervene or ulceration takes place. The longer the foreign body remains in the food passage the greater the risk of ulceration extending to adjoining structures—e.g., aorta, mediastinum, pleural cavity, or lung.

The following cases illustrate the value of œsophagoscopy as an aid to diagnosis and as an efficient therapeutic measure.

CASE 1. *Brooch in child's œsophagus.*—The patient, a female, aged 1 year and 1 month, was admitted to hospital on account of having swallowed a brooch. An X ray photograph was taken. The brooch was seen lying vertically in the œsophagus about an inch below the level of the sterno-clavicular joint. Under general anæsthesia a tube spatula 7 mm. in diameter was passed. After careful cleansing of the walls of the œsophagus the brooch was seen and was removed with forceps. (Fig. 2, A.) Uninterrupted recovery.

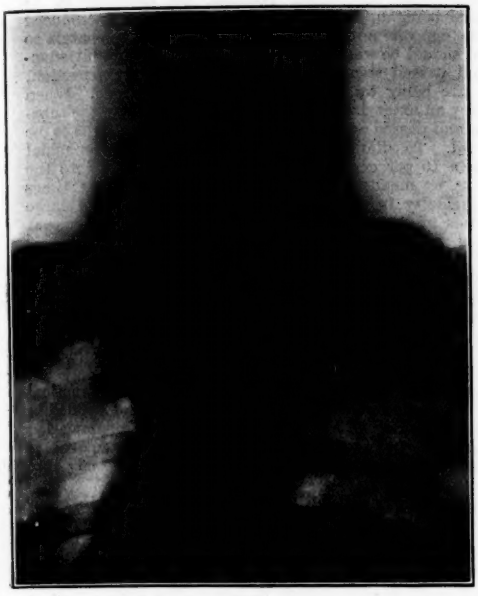
CASE 2. *Denture in œsophagus.*—A female, aged 19 years, had swallowed a vulcanite denture. There was complete œsophageal obstruction with pain over the manubrium sterni. She was seen 48 hours after the accident had happened. Under general anæsthesia the denture was located and removed. No subsequent untoward symptoms.

CASE 3. *Copper coins in œsophagus.*—A male, aged 60 years, who had swallowed two pennies and one halfpenny, was admitted to hospital complaining of great dysphagia and pain behind the sternum. An X ray photograph was taken (Fig. 1) and a coin was seen at the level of the sterno-clavicular joint. A general anæsthetic was given. The first "catch" consisted of two pennies. The forceps was reintroduced and the halfpenny, which was lying concealed behind the two pennies (and hence did not show in the photograph), was successfully removed. Uninterrupted recovery.

CASE 4. *Halfpenny in œsophagus.*—The patient, a child aged 6 years, was admitted to hospital with a history of having swallowed a halfpenny ten days previously. There was great pain with dysphagia and fœtid discharge from the food passage. An X ray photograph was taken and the coin was discovered to be lying about the level of the sterno-clavicular joint. Under general anæsthesia the coin, which was embedded in granulation tissue, was removed. Re-examination showed a rent in the wall of the œsophagus, through

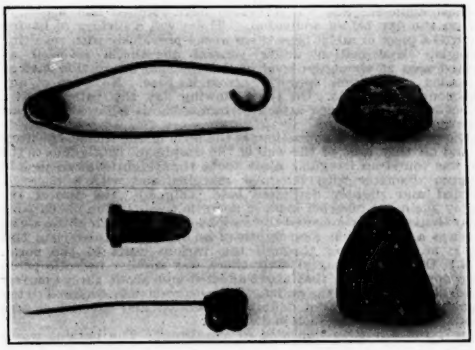
[1] An abstract of a post-graduate lecture delivered to the members of the Fylde Medical Society, Blackpool, on June 24th, 1913.

FIG. 1.



From a skiagram showing coins in œsophagus.

FIG. 2.



From photographs (actual size) of foreign bodies. A, Brooch removed from child's œsophagus. B, Portion of toy trumpet from lung. C, Ornamental pin from left bronchus. D, Damson stone in œsophagus. E, Stone from right bronchus.

FIG. 3.

Œsophagus laid open showing traumatic ulceration of its wall.

FIG. 4.

Aorta laid open, showing traumatic perforation of its various coats

which pus oozed. Rectal feeding was ordered. Rapid loss of strength resulted, and death took place seven days later from abscess in the left posterior mediastinum.

CASE 5. *Denture in hypopharynx.*—A female, aged 45 years, had swallowed a denture with four teeth attached ten days before being seen in consultation. Great dysphagia and slight dyspnœa were complained of. The temperature was 102° F.; the mucous membrane of the upper laryngeal orifice was much swollen and œdematous. The denture was seen in the hypopharynx, firmly embedded in œdematous mucosa. It was extracted with great difficulty. Recovery was slow but uninterrupted.

CASE 6. *Traumatic perforation of œsophagus (rabbit bone) into aorta; necrosis of mediastinal tissues; hæmorrhage into œsophagus, stomach, and bowels.*—The patient, a female, was admitted to hospital suffering from hæmatemesis. She was stated to have vomited half a pint of blood on the day before admission. There was a history of having swallowed a piece of rabbit bone three weeks previously with resulting dysphagia. Examination under general anæsthesia revealed an ulcerated area at about the level of the tracheal bifurcation with an œdematous granulation sprouting from its base. No trace of any rabbit bone was visible. On the following day the patient had a very severe and prolonged attack of hæmatemesis followed by heart failure and death.

At the post-mortem examination, at the level of the tracheal bifurcation and on that part of the wall of the œsophagus contiguous to the aorta, was found an irregular ulcer about three-eighths of an inch in maximum diameter with irregular margins, and with a necrotic, blackened and slightly depressed base. (Fig. 3.) The base of the ulcer lay against a blackish mass of necrotic tissue in the mediastinal cellular tissue which connected the œsophagus to the arch of the aorta. There was a perforation (one-eighth of an inch in diameter) in this necrotic area extending through the various coats of the aorta. (Fig. 4.) On the œsophageal wall there was another necrotic patch on the opposite wall to that above affected and about three-quarters of an inch lower down the gullet. This necrosis was confined to the mucous membrane, was not definitely ulcerated, and covered an area of about one eighth of an inch in diameter.

CASE 7. *Damson stone impacted in œsophagus.*—The patient was a boy, aged 14, with a history of having swallowed a caustic alkali four years previously. There had been slight dysphagia ever since. When eating some bread and jam he swallowed a damson stone. (Fig. 2, D.) Complete obstruction for solid food resulted and great difficulty in swallowing fluids. He was seen three days after the accident. He was pale and exhausted, the skin was moist, and the temperature subnormal. Under general anæsthesia a damson stone was seen at the level of the tracheal bifurcation tightly impacted in circular cicatricial scar tissue. It was removed with forceps. Dilatation of the stricture was effected with bougies. Rapid recovery.

CASE 8. *Traumatic cicatricial stenosis of œsophagus.*—The patient, a male aged 19, was seen in consultation suffering from almost complete œsophageal obstruction. There was great emaciation and weakness. There was a history of having swallowed a caustic alkali three years previously, and there had been more or less dysphagia ever since. Recently the symptoms had been acute. The lumen of the œsophagus at the level of the tracheal bifurcation was found to be almost occluded by a circular cicatricial web. There was an opening in the centre of the web just large enough to admit bougie No. 4. The opening was gradually enlarged by passing larger and larger bougies through the œsophageal tube until bougie No. 21 passed easily. Thereafter the stricture was enlarged without the aid of the œsophagoscope. Complete recovery.

CASE 9. *Carcinoma of œsophagus.*—The patient, a male aged 49, suffered from increasing dysphagia, deep-seated pain, slight blood-stained expectoration, fœtid breath, and loss of weight. On examination a cauliflower-looking growth was seen at the commencement of the œsophagus (lower level of cricoid cartilage) with superficial ulceration. A portion was removed with forceps for microscopical examination. Epithelioma.

Laryngoscopy and Bronchoscopy.

To ensure accurate introduction of rigid tubes into the air passages certain anatomical measurements should be borne in mind. In adults the trachea is from 4½ to 5 inches in length, while the distance from the upper molars to the rima glottidis is about the same. The carina or bifurcation of the trachea is therefore situated about 9–10 inches from the upper molar teeth. The vocal cords are situated at the level of the sixth cervical spine and the carina between the fourth and fifth dorsal spinous processes. The diameter of the trachea in adult males may measure from seven-eighths of an inch to an inch, in females it is about three-fifths of an inch, while in infants it may not be more than one-sixth of an inch. The carina is at times situated rather to the right of the middle line, but more usually somewhat to the left, with the result that the right bronchus is almost a direct continuation of the trachea. The angle formed by the right bronchus with the mid-line of the trachea is an angle of 25°, whereas that formed by the left bronchus is an angle of 45°. The diameter of the right bronchus is almost equal to that of the trachea, whereas that of the left bronchus is from 3–4 mm. smaller. Hence foreign bodies are more prone to fall into the right than into the left bronchus. At a distance of one inch from the carina the right bronchus gives off its eparterial branch to the upper lobe of the right lung. The left bronchus sweeps under the arch of the aorta and behind the left pulmonary artery, and at a distance of about two inches from the carina gives off a branch to the upper lobe of the left lung. As a rule four dorsal and four ventral branches are given off from both main stems.

The patient may be examined sitting upright upon a low stool, the parts to be inspected being anæsthetised with cocaine-adrenalin solution, or under a general anæsthetic, atropine having been previously injected subcutaneously, or lying either upon the back or upon the side. Many operators prefer the lateral position, the bronchus to be inspected being uppermost and the instrument introduced from the opposite angle of the mouth. The tube-spatula to be used should be well greased and warmed before introduction and passed steadily onwards under ocular inspection, great care being taken to avoid any undue force. When necessary an extension tube is introduced through the tube-spatula and passed onwards into whichever bronchus is to be inspected. To diminish the irritability of the bronchial mucosa a 10 per cent. cocaine solution is sprayed into the bronchus by means of a specially long spray. At times great difficulty is encountered from the presence of large quantities of secretion, mucus, pus, &c. For its removal repeated swabbing or aspiration with a suction-pump is called for. Tilting the end of the table so as to allow the secretion to run towards the mouth helps at times.

Foreign bodies with smooth surfaces—e.g., glass beads, marbles, pebbles, &c.—are difficult to remove on account of the inability of the blades of forceps to "hold on" as it were. At times they may be dislodged with long hooked probes, as was necessary in Case 5.

Sharp-pointed foreign bodies also present great practical difficulties on account of the points becoming embedded in the surrounding mucosa and setting up violent inflammation accompanied by profuse secretion. Before removal is possible it may be necessary to cut the foreign body into two portions.

Bronchoscopy may be either *superior* or *inferior*; in other words, the bronchoscopic tube may be passed through the mouth and laryngeal cavity or through a tracheotomy wound made purposely. As a general rule, superior bronchoscopy should be attempted first of all. In the cases about to be recorded it was found possible to remove the various foreign bodies *per vias naturales* (superior bronchoscopy).

CASE 1. *Pin in larynx.*—The patient, a female aged 30, inhaled a pin, which she was holding in her mouth, into her larynx. Violent and paroxysmal fits of coughing and a feeling of oppression over the thyroid cartilage resulted. The pin was seen to be lying in the laryngeal cavity, its point embedded in the subglottic mucosa and its head projecting above the level of the vocal cords. It was extracted with forceps. Rapid recovery.

CASE 2. *Rib of rabbit in larynx.*—The patient, a female aged 65, while eating a portion of stewed rabbit suddenly felt a sharp pain in the throat, which was followed immediately by incessant coughing. There was no dyspnœa but a feeling as of a foreign body in the larynx. She was seen in consultation one week later. The foreign body was found to be lying across the laryngeal cavity just above the level of the vocal cords. The mucous membrane was red and œdematous, and there was much muco-purulent secretion. The foreign body was extracted with forceps. The laryngeal mucous membrane was slightly lacerated during extraction. Rapid recovery.

CASE 3. *Portion of a toy trumpet in right bronchus.*—A child, aged 7, while blowing a toy trumpet inhaled the reed portion. Severe dyspnœa, accompanied by spasmodic cough and expectoration, ensued. Superior tracheo-bronchoscopy under general anæsthesia was performed. The foreign body was located in the right bronchus at the level of the eparterial branch. (Fig. 2, B.) Extraction was successfully accomplished with long forceps.

CASE 4. *Top of pencil (metallic) in right bronchus.*—The top of a pencil (metallic) while being held in the mouth became detached and was inhaled. Dyspnœa, cough, and expectoration ensued. Air was heard to enter the right lung with a peculiar whistling noise. Superior tracheo-bronchoscopy was performed under general anæsthesia, but with much difficulty from the presence of copious secretion. After aspiration and repeated application of cocaine the foreign body was discovered to be lying crosswise across the bronchus a little below the level of the eparterial branch. Removal was effected with long forceps. Rapid recovery.

CASE 5. *Smooth pebble in right bronchus.*—The patient, a male aged 25, while running with the barriers inhaled a smooth pebble which he had in his mouth. It caused sharp pain in the right chest with slight dyspnœa. Later there was marked shortness of breath upon exertion. An X ray examination was made. Under general anæsthesia the stone was found to be located in the right bronchus firmly wedged in the eparterial branch. The forceps when introduced refused to grasp the pebble on account of its smoothness. Repeated but unsuccessful attempts were made. A long probe bent at a right angle at its extremity was then introduced and was gradually insinuated behind the foreign body. By gentle levering the pebble was coaxed upwards. A sudden sharp cough forced it into the trachea when it was easily extracted with a larger pair of forceps. (Fig. 2, E.) Uninterrupted recovery.

CASE 6. *Ornamental pin in left bronchus (second division).*—The patient, a female, inhaled an ornamental pin which she was holding in her mouth. (Fig. 2, C.) Sudden sharp pain in left chest resulted with irritable and spasmodic cough, but there was hardly any dyspnœa. She was seen ten days afterwards. Examination revealed the pin in the left bronchus lying with its point embedded in the mucosa. Much difficulty in grasping the pin was experienced owing to the presence of profuse muco-purulent secretion. Superior tracheo-bronchoscopy was performed. A long forceps was introduced, and the pin was seized and extracted. Uneventful recovery.

Manchester.

THE PROCESS OF DIGESTION ILLUSTRATED BY THE ACTION OF STAINS ON THE LIVING TISSUES.[1]

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MY observations have been made on animals of several very different kinds, from the frog to the monkey, and were based on the method of staining the living tissues, a procedure which I may take for granted is known in its general principles, as I have repeatedly described it at meetings of medical societies and in periodical publications.[2] With reference to the staining materials employed by me, which I give to the animals by subcutaneous, intraperitoneal and intravenous injections, I am now, after several years' experience, able to assert without hesitation that they possess a well-marked power of selection for cell plasma in a state of functional activity. Their usefulness is greatly increased by the facts that they are relatively non-poisonous; that some of them, such as trypan blue, form true solutions; that they do not give rise to deposits of any kind in the animal body; and finally, that on entering a cell they do not undergo any alteration of their chemical constitution either by oxidation or reduction. For investigations on the digestive organs, however, the extent of their employment is somewhat narrowed by the remarkable phenomenon that the staining materials almost without exception neglect cells with an external secretion, while, on the contrary, they favour those with an internal secretion. When I speak of an internal secretion I mean not only such cells as those of the suprarenal bodies, the epithelial corpuscles, the hypophysis, the choroid plexus, &c., but also and more particularly forms such as Kupffer's stellate cells, the reticulate cells of the lymphatic glands, the spleen, the bone marrow, and above all, those known as tissue-forming wander cells—free cells found everywhere in the interstitial tissue of the organism. In my study of the digestive system I have made allowance for this peculiar property of the living-tissue stains, while I have as a matter of course refrained from following up the morphological changes which take place in the intestinal and glandular epithelium during the various phases of digestion, these having been thoroughly worked out already by extremely competent authorities. I have, in fact, confined myself to giving my whole attention to those cells which occur free in the connective tissue substratum of the intestinal villi and the connective tissue of the mucous membrane, and which take an active part in the process of digestion, as has been shown by Hofmeister, by Heidenhain most of all, and subsequently by Ellenberger, Ascher, and their pupils.

I undertook my investigations not only for the purpose of adding to our present knowledge, but more especially to ascertain whether micro-chemical evidence might be obtainable for the view put forward by Abderhalden, according to which the synthetic building up of the disintegration products of our food, which have been rendered assimilable by the digestive juices, takes place in the connective tissue of the mucous membrane.

I followed what has hitherto been the usual course of such researches, in that I investigated the different sections of the digestive canal under the very varied conditions represented by a mixed diet, by a partial diet of fatty carbohydrates and albumin, by starvation, and by pathological states. In only one point did I depart from the methods hitherto followed; this was when I did not confine myself to an examination of the gastro-intestinal wall only, but brought within the compass of my inquiries structures which I should now like to designate as indispensable accessories to the process of digestion — namely, the omentum, the lymphatic glands, the spleen, and the liver. Such simultaneous investigations of several organs are in practice attended with great difficulties, which are soonest overcome by making use of small animals, such as the frog, the mouse, and the rat, the results obtained in this way being afterwards completed by investigations carried out on larger animals. For instance, by a microscopical incision through the ileo-cæcal valve of a rat the observer will succeed in uniting the lower end of the ileum, the colon, the cæcum, the cæcal lymphatic glands, and an entire piece of the omentum. With reference to the procedure, I should like to mention that for the investigation of the digestive tract the staining of the living tissue must be freely pushed, but it is advisable that this should be done quite slowly, by several injections of small doses, so that the physiological experiment may arrive at the final result in a normal animal whose general condition has not been subjected to disturbance. Now if the abdominal cavity of such a rat as the one which I here show you is opened when digestion is at its full height and the digestive tract is brought into view, extremely important differences in the coloration of its several portions may be recognised with the naked eye. The œsophagus appears almost colourless, but on the stomach we find a very characteristic diversity of tint, the muscular portion of the cardia being almost white, whereas the glandular pyloric portion is dark blue. This blue coloration is continued on the duodenum and the upper portion of the jejunum. The colour gradually fades, but again becomes dark blue in the lowest portion of the ileum and still more so in the cæcum and the upper portion of the colon. Towards the rectum the colour fades again. These diversities of colour are not of an accidental nature, but depend rather upon physiological processes of digestion. Microscopical examination fully explains the cause of these various colorations. Stated briefly, the histological element concerned in the varied coloration of the digestive tract is similar to the one which I have fully described in connexion with the varying colours of the skin after injection of substances which stain the living tissue. The intensity of the colour depends on the number, whether large or small, of the free cells stained during life and present in the connective tissue of the mucous membrane, and on account of their great affinity for pyrrol blue, a substance which stains living tissues, I have given them the name of pyrrol cells. Apart from the fact that these cells contain a granular plasma which possesses a well-marked affinity for our living tissue stains, they are characterised by the three fundamental properties that they exhibit extremely active amœboid movements, that they possess a high degree of chemotactic irritability, and finally, that they are endowed with phagocytic qualities. At any place where digestion is proceeding energetically, as at the pyloric portion of the stomach or at the ileo-cæcal valve, the number of these cells is quite astonishing. The situation in which they are ordinarily most abundant is the reticulated layer of the mucosa, but during active digestion they migrate to the apices of the intestinal villi, where they accumulate in considerable masses. Generally speaking, we find these cells in a state of continual migration, so that no layer of the intestine, not even the muscular layer, is free from them. For the most part they penetrate the intestinal wall along with the perivascular lymphatic vessels which accompany the intestinal vessels. They are not invariably present in the submucous or mucous lymphatic reticulation; they are more often free, even among the glandular cells or the intestinal epithelium through which they can make their way. Although found abundantly in the intestinal wall during digestion they occur but seldom when food has been withheld, and we shall soon meet with pathological conditions in which they are completely absent from the intestinal wall. There are two questions which I should like to discuss somewhat fully at this point: 1. What is the place of origin of our pyrrol cells? 2. What included substances are contained in their protoplasm?

On the first point I will be very brief, for in my published writings I have repeatedly mentioned that the blood serum might be stained an intense blue without either the walls of the vessels or the corpuscular elements of the blood taking the stain. Our cells, therefore, are not developed from the blood, neither do they originate as denizens of the intestinal wall, and, in fact, I have already mentioned under what circumstances they may be entirely absent from it. The frog forms an excellent object for investigation in this direction, because in the frog our cells are unusually large, while the number of them in the connective tissue of the mucous membrane is inconsiderable. In the winter frog, which may be kept for weeks almost without food, it will be

[1] A communication made at the German Congress of Internal Medicine held at Wiesbaden, 1913.
[2] THE LANCET, May 4th, 1912, pp. 1183, 1203.

useless to look for our cells in the intestinal wall, but if mealworms or other kinds of food are given to it we find the cells present in the typical situations. As the principal, although not the only place of origin of our cells, I am disposed to describe the omentum as the most important. In all the animals examined by me (frogs, mice, rats, guinea-pigs, rabbits, dogs, and monkeys) I have encountered our cells in quite astonishing numbers accompanying the vessels which traverse the omentum; they are either isolated or arranged in clumps which correspond to the *taches laiteuses* described by Ranvier.

On the present occasion I need only touch briefly on the circumstances connected with the omentum, because I have discussed this part of the subject in my monographs "External and Internal Secretion in the Healthy Organism illustrated by the Staining of Living Tissues" (H. Laupp, 1909 and 1912).

Apart from the omentum we find our pyrrol cells also in the spleen and the lymphatic glands, but these details will not be discussed until a reply has been given to the question, What included substances are contained in the protoplasm of our pyrrol cells? I wish now to declare emphatically that in the functionally active wall of the intestine it is hardly possible to find two pyrrol cells exactly alike one another, and it is only by staining the living tissues that cells of varying characters have been identified as different functional phases of one original morphological type. The pyrrol cell generally appears as a large mononuclear lymphocyte with a pale protoplasm containing isolated blue granules. Then, again, there are cells which possess a regularly developed system of granules symmetrically stained blue. Other cells are seen in which fine and coarse blue granules lie side by side. Finally, there are giant cells in which coarse and very coarse dense masses stained bluish green are present along with yellow and dark brown clumps of pigment whose origin may without hesitation be referred to disintegration products of the colouring matter of the blood.

Now it is a very remarkable fact that the cells exhibiting the coarse bluish green masses and the clumps of pigment above mentioned predominate in the apices of the intestinal villi and among the cells moving in that direction, whilst the cells poor in granules are seen most plentifully in the submucosa or according to circumstances on the return journey passing through the muscular layer of the intestine. In consequence of my researches I have become thoroughly impressed with the idea that our cells when they enter the wall of the intestine are richly laden with useful material which they give up in the connective tissue substratum of the villi, and then in a comparatively empty condition take their departure from the intestinal wall. The phenomena are best seen in the intestine of the frog. As I have already mentioned, the cells in this situation are so uncommonly large that two of them are sufficient to fill up almost completely the width of a villus, and it is possible to perceive with the utmost distinctness how these cells in their migration to the apices of the villi can give up the granular masses stained while still living and can deposit them under the epithelium.

As already mentioned, our cells are found in the lymphatic glands as well as in the omentum. I have given especial attention to the lymphatic glands, of which some lie behind the stomach, while others are situated either on the cæcum and mesentery or along the great vessels of the abdomen. With respect to these glands, especially those in the rat, they are well known to be regarded by the majority of anatomists as lymph glands of a special kind, the so-called blood lymph glands, which are principally distinguished by the fact that numerous red blood corpuscles are present in their free blood and lymph spaces. I will not at this point enlarge on the finer anatomical differences in the structure of these lymph glands; I only wish to say that my extensive investigations have taught me that in these lymph glands there is a periodical change of function amounting even to a cyclical condition of function. These glands sometimes appear rich in secondary nodules, which are sometimes found to be separated from one another by broad bands of compact large cells (interstitial tissue, Schumacher) stained during life; sometimes the lymphatic glands appear as if "painted out" (von Ebner). In this condition the whole lymphatic gland, but more especially the segment of it turned towards the hilus, is ploughed up by broad lymph sinuses which surround the island-like remnants of the lymphoid tissue. In these lymph sinuses our phagocytes are to be seen in company with red blood corpuscles and again passing through all the transitions which I have already described as occurring in the intestinal wall. It is not at all uncommon to find cells of this description which have taken up 20 and more red blood corpuscles. They are very often loaded with blood pigment as well as with lymphocytes in all stages of disintegration. It seems to me to be deserving of attention that while the phagocytes in the marginal sinus are apparently poor in included substances, those on the other hand which are leaving the hilus of the lymph gland are rich in included substances. I will not further discuss whether our phagocytes originate from the reticulated cells of the lymphatic glands, these cells being in like manner stained while in the living state; in every case they receive important structural elements in the lymphatic gland.

The behaviour of the spleen is quite similar to that of the lymphatic glands. In the spleen we can in like manner recognise periodical functional conditions of such a kind that the spleen appears at one time to consist principally of follicles and at another time of pulp tissue. It is in the pulp that we once more meet our phagocytes which here by the incorporation of red and white blood corpuscles are going through all the changes which I have already described as occurring in the lymphatic glands. I have no certain knowledge as to whether these pulp cells leave the spleen and travel about in the peritoneal cavity, but my numerous researches regarding the absorption of fine dust and bacilli from the peritoneal cavity on the part of the spleen have proved that channels of communication must exist between the peritoneal cavity and the spleen pulp; for an account of this part of the subject my monographs may be consulted. Since it is generally admitted that in the spleen and the blood lymphatic glands the red corpuscles of the blood which have become "weak through age" are destroyed on a considerable scale, I should like to amplify this statement by adding that in the destruction of the red blood corpuscles valuable substances are liberated which on being taken up by the phagocytes play an important part in the assimilation of nutrient matter as well as in the intermediate metabolism.

Finally, with regard to von Kupffer's stellate cells, in them also the staining of the living tissue discloses very numerous modifications of their granular plasma which no doubt correspond to varying functional conditions. Von Kupffer has already remarked on the avidity with which the stellate cells attack the red corpuscles phagocytically. I shall content myself with alluding to the important part which von Kupffer's cells play in pathological siderosis, in severe anæmia, and similar illnesses. In my comprehensive monograph I propose to deal more fully with these conditions.

The reticulated cells of the bone marrow are also to be placed in association with von Kupffer's cells. My communication would not be complete if I did not mention another cell which occurs free in the connective tissue of the mucous membrane, and which was first described by Heidenhain as a "cell containing red granules"; it has also been described by Ellenberger, Ascher, and their pupils as an acidophile cell. I have met with this cell in all the animals examined by me, according to the stage of digestion in greater or less quantity in the wall of the gastro-intestinal tract, in the lymphatic glands, and the spleen in association with the phagocytes stained during life. My researches have led up to the further result that these cells are true ferments, inasmuch as the oxydase reaction according to Schulze's method always succeeds with them. If the oxydase reaction is combined with the staining of living tissue in the examination of our phagocytes in the lymphatic glands the remains of the acidophile cells which they have taken up can be shown most distinctly, for in our phagocytes the isolated oxydase granules come into view, together with the granules that have been stained during life.

From this it is evident that the process of digestion coincides with a cellular reaction which takes place in the connective tissue of the mucous membrane, a reaction having for its principal feature an immense concourse of two kinds of cells, phagocytes capable of being stained during life and acidophile cells. In circumstances different from those already mentioned I have also found a precisely similar reaction in the animal body under the most varied conditions.

I will select only two typical examples, mounted preparations of which will be shown. If, for example, a rat is purposely infected with trichinosis, masses of pyrrol cells and acidophile cells are found in the tissues surrounding the trichinous deposit and even in the trichinous capsules. In the neighbouring lymph glands all those changes take place which I have described as occurring in the cæcal glands during digestion. I show you, moreover, a prepared specimen of carcinosis of the peritoneum of the mouse. It will be seen that the carcinomatous nodules lying in the mesentery are dark blue, whereas the intestine has taken the stain lightly, and microscopical examination proves that there has been a great accumulation of pyrrol cells on and around the carcinomatous nodules, whereas the intestine is almost quite free from these cells. The carcinoma has therefore diverted the pyrrol cells from the intestine and drawn them to itself.

This cellular reaction is very similar to and perhaps identical with the one which Schlecht, Schittenhelm, and their co-workers have recently brought about by the parenteral administration to an animal of albumin derived from a different source and by anaphylaxis both in the blood and also locally. All these various conditions have a basis in common—namely, this, that the organism resists the entrance not only of foreign bodies but also of blood or cells from foreign sources, and when they have entered it may endeavour to convert them respectively into a part of its own fabric or into its own blood and cells.

Freiburg.

THE BLOOD AND THE CEREBRO-SPINAL FLUID IN MUMPS.

BY ANTHONY FEILING, B.A., M.B. CANTAB., M.R.C.P. LOND.

OBSERVATIONS on the blood in many infectious diseases, such as pneumonia or enteric fever, for example, have been numerous, and the changes which occur are well known. Very little attention, however, has been paid to the alterations in the corpuscular content of the blood in mumps. Indeed, in a recent work on the blood Gulland and Goodall state first that "the blood shows no change in uncomplicated cases. Orchitis seems generally to produce a slight leucocytosis." On another page they state that "a relative lymphocytosis occurs in some cases of malaria, typhoid, measles, and mumps." It is my intention to show from a personal examination of the blood in 40 consecutive cases that definite changes may usually be found. Previous observers—and they appear to be few—have published results which agree more or less closely with my own. Sacquépée[1] in 1902 published his observations on the results of an examination of 20 cases. His conclusions were as follows. First, in cases without orchitis, of which he examined 15, there were (1) a slight increase in the total number of leucocytes, which varied from 6000 to 13,600 per cubic millimetre; and (2) an increase in the relative number of mononuclear at the expense of the polymorphonuclear cells. Secondly, in cases with orchitis, (1) the total number of leucocytes was higher, between 10,000 and 18,000 per cubic millimetre; and (2) the increased number of leucocytes was principally due to an increase in the polymorphonuclear cells. He summarises as follows: (1) mumps without orchitis is usually accompanied by a moderate leucocytosis—this increase is chiefly in the mononuclear cells; and (2) the appearance of orchitis changes the blood picture—it leaves the mononuclears intact, but increases the polymorphonuclear cells.

Krestnikow[2] found a lymphocytosis present from the onset of the disease and also noticed an increase of polymorphonuclear cells when orchitis occurred. Pick[3] considered that the absence of polymorphonuclear leucocytosis was of value in differentiating the orchitis of mumps from that due to gonorrhœa. In uncomplicated cases his total leucocyte counts averaged 8500 per cubic millimetre, the percentage of mononuclear cells varying from 35 to 57; in cases with orchitis the total number of leucocytes averaged 13,400 per cubic millimetre.

Wile,[4] in 1906, examined the blood in 20 cases. The total number of leucocytes which he enumerated in only 6 cases varied from 8000 to 13,600 per cubic millimetre, while the average percentage of lymphocytes and polymorphonuclears respectively was 59·3 and 38·3. He concludes that: (1) lymphocytosis, relative and absolute, is a constant feature; (2) it is present on the first day of the disease and persists until all swelling has disappeared; (3) it is more marked when the parotitis is bilateral; (4) while most marked in children, it is present in adults to a lesser degree; (5) the number of polymorphonuclear cells varies inversely with the number of lymphocytes; (6) with the advent of orchitis the polymorphonuclears tend to increase in number; (7) a total leucocytosis may occur, but is not of high degree; (8) there is no secondary anæmia; and (9) lymphocytosis is a diagnostic feature serving to distinguish mumps from lymphadenitis.

Considerations of space forbid me to quote in full all the figures of my own blood examinations. Only a brief *résumé* of the results obtained can be given. The ages of the patients examined varied from 2 to 38 years; the great majority were between 5 and 15. The day of the disease on which the blood was examined varied from the first to the seventeenth; in the majority of cases the blood was taken between the third and eighth days, when the disease was fully established. Only two cases of the series presented orchitis. At first the red blood cells were counted as well as the white, but as no alteration was found in 12 cases thus examined, in the remainder the white cells only were counted. In every case the total number of leucocytes was enumerated and a differential count made. The results are considered under three heads: (1) the total number of leucocytes per cubic millimetre; (2) the percentage and total number of lymphocytes; and (3) the percentage and total number of polymorphonuclears. The eosinophile and basophile cell counts are neglected as exhibiting no special changes nor affording grounds for any particular conclusions.

Taking first the total leucocyte count, the highest count recorded was 15,600, the lowest 4600; the average count appears as 9400. A slight total leucocytosis was therefore established as an average.

Secondly, with regard to the lymphocytic content of the blood, the highest percentage recorded was 68·5, the lowest 30, the average being 48. The highest total number of lymphocytes per cubic millimetre was 8432, the lowest 2117, the average being 4600. A relative and absolute lymphocytosis was thus established.

Thirdly, with regard to the polymorphonuclear cell content, the highest percentage was 64, the lowest 25, the average being 46. The highest total number was 8195, the lowest 1736, the average being 4400. Thus on the average the polymorphonuclear cell count was but slightly altered from the normal, and when altered varied inversely with the lymphocyte count.

Of the two cases of orchitis examined, one was a man in whom epididymitis had been the first symptom; the blood was examined on the seventeenth day of the disease, when orchitis was still present, and so far from there being a leucocytosis of polymorphonuclear cells, as Sacquépée observed, the total leucocyte count was only 5600, while the percentage of lymphocytes was 66; in this case the lymphocytes were much increased at the expense of the polymorphonuclears. The second case of orchitis was a boy, aged 13, whose blood was examined on the seventh day of the disease and on the second day of the orchitis; the total number of leucocytes was 9600, the polymorphonuclear percentage 55, and the lymphocyte percentage 42. Thus the only two cases of mumps with orchitis which I have had the opportunity of examining presented both a relative and an absolute lymphocytosis, and did not show the change in the blood picture which previous observers have mentioned.

Three cases of parotitis due to other causes have been examined; in two of these a septic condition of the mouth was apparently the cause, and one was a case of so-called post-operative parotitis. In all three cases a marked leucocytosis was present, reaching as high as 36,000; the increase was due to an increase in the polymorphonuclear cells.

From the results of my own observations I think the following conclusions are justified: (1) that the blood in mumps shows definite changes in the corpuscular content; (2) that these changes consist (*a*) in a slight increase in the total number of leucocytes, and (*b*) in a lymphocytosis

which is both relative and absolute; (3) that this lymphocytosis is present on the first day of the disease and persists for at least 14 days; (4) that the occurrence of orchitis does not invariably alter the blood picture; and (5) that the changes in the blood are of distinct diagnostic value in differentiating mumps from other inflammatory swellings of the parotid or submaxillary salivary glands and from cases of lymphadenitis.

It is interesting to compare the changes in the blood with those which have been found in the cerebro-spinal fluid in cases of mumps which have been complicated by meningitis or even occasionally in cases where no meningeal symptoms have existed. Monod[5] found a lymphocytosis of the cerebro-spinal fluid in 6 out of 8 cases examined, even though none showed any clinical evidence of meningitis. Chauffard and Boidin[6] made repeated examinations of the cerebro-spinal fluid in two cases of mumps, both of which suffered from high fever and severe headache; in both a marked lymphocytosis was present—the cells, indeed, were so numerous in the centrifuged deposit that these authors applied to the condition the term "une véritable suppuration lymphocytique." Cases of cranial nerve lesions in mumps, associated with a marked lymphocytosis of the cerebro-spinal fluid, have been reported. Thus, Dopter[7] has described it in association with facial paralysis and with herpes of the trigeminal nerve. Sicard,[8] again, found it in a case of herpes of the supra-orbital and auriculo-temporal nerves following mumps. A case, recently under the care of Dr. J. A. Ormerod in St. Bartholomew's Hospital, to whose kindness I am indebted for permission to publish the notes of the case, has fully confirmed the observations of these authors. The following are the particulars:—

A male child, aged 5½, was found on April 4th to have pain and swelling in the right side of the neck, which later passed to the left side. A medical man then saw the case and diagnosed mumps. On the 5th the child vomited, became constipated, and appeared generally ill. On the 9th headache was complained of, and apparently an amblyopia lasting for 24 hours also occurred. On the 11th he was admitted to hospital in a state of collapse, on recovery from which he almost immediately passed into a semi-comatose condition. On examination there was no parotitis; the temperature was 98° F., the pulse 90; knee-jerks absent, Kernig's sign absent, plantar reflexes flexor, no optic neuritis, urine natural; the general condition strongly suggested meningitis. A lumbar puncture was performed, and the fluid obtained was examined by Dr. A. E. Stansfield, who reported as follows:—

"Fluid colourless, slightly turbid, under slightly increased pressure. Chemical examination: albumin, 0·125 per cent.; globulin, no ring with ammonium sulphate; sugar, reduction only just perceptible. Cytological examination: cells numbered 2500 per cubic millimetre. Differential count: lymphocytes, 96 per cent.; polymorphonuclears, 2 per cent.; endothelial cells, 2 per cent. Bacteriological examination: No organisms seen in films; no growth in culture in 24 hours."

On April 13th the child was improving rapidly. On the 22nd a second lumbar puncture was performed; only 20 cells per cubic millimetre were present, of which 90 per cent., however, were lymphocytes. On the 25th the knee-jerks returned. Complete recovery ensued.

In this case, therefore, a clinical picture strongly suggestive of meningitis is presented, and the clinical diagnosis is supported by the examination of the cerebro-spinal fluid. The two together constitute a fairly complete proof of the existence of an inflammatory lesion of the meninges of the brain and spinal cord which undoubtedly followed mumps and for which no other cause could be found. From this case and from the accounts of the other quoted cases the following conclusions seem justifiable: (1) that a lymphocytosis of the cerebro-spinal fluid occurs in mumps, when that disease is complicated by meningitis or by lesions affecting the cranial nerves; and (2) that a lymphocytosis has been found in cases of mumps which have presented no clear clinical symptoms of any organic lesion of the nervous system.

Finally, from a consideration of the changes found in the blood and cerebro-spinal fluid, we are, I think, justified in assuming that the virus of mumps excites an inflammatory reaction in the body whose characteristic feature is a great aggregation of lymphocytes.

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OPERATION AND AFTER-TREATMENT OF FISTULA IN ANO.[1]

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IT is still often taught that the reason why a fistula will not heal is to be found in the movements of the sphincter muscle, and that on this account it is essential that the muscle should be divided in order to obtain healing of the fistulous tract. While I do not deny that the movements of the sphincter muscle are a factor in preventing healing, I am sure from my own personal observation in numbers of cases that the movements of the muscle are a very small and unimportant factor. The really important factor in preventing spontaneous healing of a fistula is inadequate drainage. If the track of the fistula is thoroughly drained by carefully planned incision of the parts healing will take place, even if none of the muscular structures have been divided. It is essential, however, not only to provide adequate drainage at the time of the operation, but to so plan the wound that there shall be adequate drainage of the deeper parts of the track until these deeper parts are healed. It is a peculiarity of wounds involving the anal canal that the part of the wound which lies in the bowel and involves the mucous membrane does not heal so fast as the cutaneous portion of the wound. It is, I am persuaded, a lack of recognition of this important fact that is often the cause of failure to obtain sound healing of wounds in this neighbourhood. When possible, the wound should be so planned that the portion of it involving the skin is considerably wider and larger than the portion involving the mucous membrane and the bowel. This will often require what at first appears to be an unnecessarily large wound. When operating at St. Mark's Hospital I have often found that onlookers have been surprised at the amount of skin which I have cut away, no less than at the fact that the sphincter muscle has not been cut at all. The reason for doing this is that one has to provide a free opening to the fistulous track which will remain a free opening until the track itself is healed. The maxim to ensure success in operating for fistula is to "provide free drainage to all parts of the track."

Where a fistula is very large and its tracks are deep we cannot always carry this maxim into effect without danger of producing incontinence, and it is here that experience is of the utmost value. A happy compromise is the best course to pursue, it being always remembered that it is both easier and better to perform a second operation for the purpose of re-establishing good drainage, when the wound has shown signs that it will not heal further, than to have to perform a second operation for incontinence.

Operative Treatment of Fistula.

There are several methods of operating for fistula, each of which will be described. Thus, the fistula may be excised and the wound sewn up; the fistula may be simply excised and the wound left open; or the fistula may be incised and the wound left open. Obviously the ideal method is to excise the fistula and completely sew up the wound so as to obtain primary union. But this method, while ideal on paper, is seldom satisfactory in practice. Wounds at the anal margin which are stitched up seldom heal satisfactorily. Primary union of the wound rarely takes place, and when it fails to do so pockets and channels form which interfere with the healing of the wound, and often necessitate its being laid open again. The stitches, too, are very liable to cut out. Nor is this method applicable to complex and horseshoe fistulæ, which are particularly the cases where primary union would be of the most value.

Excision of the whole fistulous track, leaving the wound open, is a very satisfactory method when it can be carried out without sacrificing valuable tissue or leaving too large a wound. But this method is also not applicable to the more complicated fistulæ. One has always to remember that the patient must not be left with a damaged anus or a mass of scar tissue, as this will cause more trouble than the fistula itself.

[1] Founded on a post-graduate lecture delivered at St. Mark's Hospital on May 5th, 1913.

Simple incision of the fistulous tract still remains the best operation for the majority of cases. As it is the operation most frequently applicable and most successful it will be described first, and at greater length than the other methods.

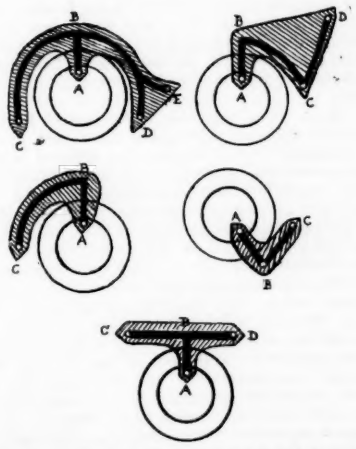
Preparation of the patient.—The patient should be carefully prepared for operation, the object being to ensure that the rectum is empty and will remain so for a reasonable period after operation. Careful preparation is most important, for though we cannot obtain an aseptic field of operation owing to the infective material in the fistula itself, we can at least prevent further infection of the wound, and, moreover, we can thus prevent fæcal material coming in contact with the wound until granulation has commenced. Attempts have been made by injecting carbolic acid or some other antiseptic along the fistulous tract to render the latter aseptic, but my experience has been that there is little to be gained by this plan. Anyone, however, who doubts the value of rendering the parts as clean as possible has only to observe the difference between a fistula operated on in this way and one where fæcal material has been allowed to come in contact with the wound either during or immediately after the operation. A few days after the operation it will be seen that whereas in the former case the wound is clean and already granulating, in the latter it will be sloughy and healing will not have begun.

The skin round the anal margin should be shaved and painted over with iodine solution consisting of 2 per cent. iodine in 75 per cent. rectified spirit. Strong antiseptics in this neighbourhood are apt to cause considerable irritation and are therefore best avoided.

It is a great mistake to operate upon a fistula when there is acute inflammation. When much pus is being discharged, or a large abscess is present, the operation should not be performed. The proper treatment in such a case is to ensure that there is free drainage, if necessary by enlarging the existing openings for the purpose, and to have the tracks and pockets frequently irrigated with peroxide of hydrogen or some suitable antiseptic solution. Frequent fomentations and hot baths will also assist in the process of cleaning up a fistula. This often means delay which is irksome to the patient, who naturally desires to get the operation over as soon as possible. It is, however, of considerable importance in obtaining a good result, and saves time in the end, as it much reduces the size of the wound which has to be made when the fistula comes to be operated upon.

Operation in the case of a simple fistula.—The simplest kind of fistula to operate upon is that in which there is one straight track between the external and internal openings. Before proceeding to deal with the fistula it is most important in all cases to make a very thorough examination with a view to ascertaining that there are no other tracks or complicating conditions. One is often able to find out considerably more about a fistula when it is examined under an anæsthetic than it was possible to discover when the fistula was examined in the consulting-room. Not infrequently it will be found that a fistula, which was previously thought to be quite a simple one, proves on examination to be a complicated one, there being deep tracks hitherto undetected. Supposing, however, it has been found that the fistula is a simple one, a curved steel director with a fairly thick point should be passed up the track of the fistula through the external opening and made to emerge through the internal opening of the fistula and out at the anus. If a director with a very fine point is used it may easily be pushed through the wall of the fistula, and part of the track will thus be missed. The director being in place all the tissues overlying it should be divided with a knife, either by passing a curved bistoury along the groove of the director and slitting up the tissues by transfixation, or by cutting down on the director with an ordinary scalpel. The director is then free and may be removed. A clip is next fixed to the skin at either side of the wound to act as a retractor, and the wound is held open by the assistant. All granulation tissue lining the fistulous track is then scraped away with a Volkmann spoon, and the fibrous track left is carefully examined in a good light to make sure that there are no other tracks, the opening of such tracks, where they exist, being generally seen as dark holes lined with granulation tissue. If there is a large amount of very dense fibrous tissue it is a good plan to cut into it in one or two places. This was originally pointed out by Mr. Salmon, and has since been known as "Salmon's back-cut." Lastly, the edges of the wound must be freely cut away so as to leave a nice open wound without overhanging edges. Healing occurs much more quickly in a wound which is open than in a narrow slit with thick, overhanging edges; and, moreover, the resulting scar is smaller and less unsightly. After all the cutting has been finished the wound should be examined for bleeding points. Any vessels that spurt should be caught in clips and tied off with fine silk. It should, however, be borne in mind that the fewer ligatures left in the wound the better for rapid healing. General oozing can easily be controlled by plugging the wound with pieces of wool. In the case of a fistula where there is a deep wound, and much oozing which it is difficult to control, a large vulcanite tube can be placed in the rectum after plugging the wound. This will usually efficiently control any free oozing. The point to bear in mind when operating on a fistula is that the whole fistulous area must be freely drained, and the wound so planned that not only will there be free drainage when the operation is complete, but that the drainage will remain efficient until all the deeper part of the fisula is healed.

Complicated fistula.—When the fistulous track is not straight, or there are other tracks communicating with the same internal opening, the external tracks should first be carefully laid open, and last of all the track passing to the internal opening should be divided in the way already described, care being taken to make the incision into the bowel in an antero-posterior direction; or in the case of a fistula with a lateral opening radially to the anus. Oblique incisions through the anal margin should always be avoided, as they are apt to result in loss of control and to leave a badly shaped and unsightly scar. It is well to bear in mind that, with very few exceptions, there is only one internal opening to the fistula, and that in all cases the anal margin and external sphincter, if involved, must only be divided in one place. All islands or promontories of skin and tissue left after the tracks have been laid open should be cut away. Nothing is gained by preserving them, and they seriously interfere with healing. The diagrams given, in which the



A, Internal opening. B, Nearest point of fistula radially from A. The incision from B to A is made after the remainder of the fistula has been divided. In each diagram the fistula is shown as a black line, the openings as white dots, and the shaded areas show the shape of the wound left after operation.

track of the fistula is shown in black, and the wound which should be left after its division is shown shaded, will convey better than words an idea of the manner in which the operation should be performed. Several typical forms of fistula are shown.

In the case of a fistula having a lateral opening above the external sphincter, the division of which will involve completely dividing the external sphincter laterally (fortunately an uncommon form), it is necessary to be very careful or most serious incontinence may result from the operation. It is a matter for careful consideration whether it is not better to avoid dividing the external sphincter laterally in such cases, even at the risk of the fistula not healing; a second operation being preferable to an incontinent anus. A good plan in

some cases is, after division of the track, to bring the ends of the sphincter together by deep traction sutures of silkworm gut or silver wire. By enlarging the opening of the fistula and draining the deep part of the track with a drainage-tube it is generally possible, if careful attention is paid to after-treatment, to get fistulæ with a high lateral internal opening to heal without the necessity of laying open the track into the bowel. Fistulæ with high lateral openings should, if possible, only be operated upon by specialists. I have seen quite a number of patients who have been rendered permanently incontinent by inexpert operations for this type of fistula. I cannot too strongly insist upon the importance of treating such fistulæ with the greatest respect. The majority of cases of incontinence resulting from fistula operations are those in which the fistula had a lateral opening.

Horseshoe fistula.—In dealing with a horseshoe fistula one may proceed in either of the following ways. The external tracks on each side of the bowel are first laid open by passing a grooved director through one of the external openings along the track, and slitting up the tissue over it with a curved bistoury passed along the groove in the director. For this purpose, unless there are numerous external openings, a director grooved to the end will be required. In this way one after another of the tracks not involving the bowel are laid open until only the fistulous track which passes forward to the internal opening remains uncut. This is then divided on a grooved, probe-pointed director passed through the track from the centre of the posterior wound. An alternative method which will sometimes be found easier is first of all to expose the internal opening (which, as already mentioned, will in most cases be found posteriorly in the middle line) by dilating the sphincter, and, if necessary, passing a speculum. A steel director is then passed into the opening from the bowel and pushed straight backwards till its point can be felt or seen beneath the skin posteriorly in the middle line. The end of the director is then cut down upon and its point made to emerge through the wound posteriorly. The tissues overlying the director are then laid open by passing a bistoury along its groove. The side tracks are next divided by passing the director from the back part of the first incision along the director and out of the external opening, first on one side and then on the other. This being done, any subsidiary tracks are looked for and divided in the same way.

When there is a very large horseshoe fistula which surrounds the anus on three sides it is often preferable to do the operation in two stages, the external tracks being laid open at the first operation, and when these are nearly healed the posterior track communicating with the bowel being laid open at a second operation. The objection to performing the operation in one stage is that, owing to the skin supports of the lower end of the bowel being cut away and the bowel divided, a certain amount of retraction is likely to occur with resulting deformity of the anus; and also that, for the same reason, the ends of the sphincter, where this muscle is divided, will very possibly not heal in good position, and as a result there may be loss of control after healing is complete. This can be avoided by doing the operation in two stages, as by the time the sphincter is cut the neighbouring parts are well supported by new tissue formed during the healing of the wound. By carefully planning the operation in two stages a good rectal surgeon will be able to avoid the risk of incontinence following an operation for fistula, even in the most extensive cases. It is always well to bear in mind that the worst possible result which can follow an operation for fistula is incontinence.

Tracks running up the bowel.—It often happens that on investigation of the fistula after some of the tracks have been laid open one or more of the tracks are found to run up the bowel and parallel with its walls. Some rectal surgeons think these tracks should be laid open freely into the bowel, but personally I am not of this opinion. As my colleague, Mr. F. Swinford Edwards, pointed out many years ago,[2] these tracks, even when they run a considerable way up the bowel, can be made to heal without being laid open. Such tracks should be thoroughly dilated with the finger, and a small piece of drainage tubing passed up to their extremities, the end of the drainage tube being cut off at the outer edge of the wound in the skin. If there is more than one track of this kind each should be separately drained in the same way. These tubes are useful in enabling the tracks to be irrigated as well as to be drained, and they should be shortened from time to time as the tracks heal up. This is the best treatment when the tracks pass up outside the muscular coat. When, however, the tracks are submucous they can be safely laid open into the bowel and the edges trimmed off with scissors so as to leave flat, shallow wounds in the rectal wall. If this is done the rectum should be irrigated twice daily to keep the wound clean, and healing will usually be found to occur quite rapidly.

Fistulæ in which the internal opening is above the internal sphincter.—There has been much discussion at different times as to the advisability in such cases of laying open the whole of the fistulous track, owing to the liability to incontinence which exists as the result of division of both sphincters. I have seen many cases in which both sphincters have been cleanly cut through posteriorly, where the wound has healed up quite satisfactorily and the control has subsequently been normal. It is certainly advisable if possible to avoid dividing the internal sphincter, but one need not hesitate to divide it should this become necessary for the purpose of healing the fistula.

Blind internal fistula.—In this type of fistula the sphincter should be well stretched and a speculum, preferably of the duck-bill type, put in the bowel so as to give a good view of the internal opening. A probe-pointed director should then be passed into the fistula from the bowel opening, and its point made to press up against the skin at the extremity of the fistula. This should be cut down upon so as to make the fistula complete, and the tissue overlying the director slit up. The rest of the operation is the same as for an ordinary complete fistula.

Operation with suture of the wound.—Nearly every rectal surgeon has at some time or other attempted to close a fistula wound by suture, and a great many methods have been described. This practice is only suitable for comparatively simple fistulæ, and even then it is seldom that anything is gained by it. It is, however, valuable in cases of fistulæ with lateral openings and in cases of very complicated, extensive fistulæ, in which part of the track may often be sewn up with advantage. It is essential that the operation should be carried out under the strictest antiseptic precautions, as everything depends upon primary union of the wound. If possible, the fistulous track should itself be sterilised by the injection of iodine solution, carbolic acid, or some other form of antiseptic, into the track previous to operation.

The After-treatment of Cases of Fistula.

This is in many respects the most important part of the treatment of fistula, and if not properly carried out the most careful operation is more than likely to be a failure.

The dressing should be frequently changed. I always let the patient sit in a hot bath containing a little antiseptic twice a day. The dressings soak off in the bath, and the nurse then washes the wound with some weak carbolic and redresses it. Thus the dressings are changed twice a day, and sometimes oftener, as they are always changed after the bowels have acted. One of the greatest mistakes commonly made in dressing a fistula is to plug the wound. This is often energetically carried out, so that every part of the wound is tightly plugged with gauze. There is, I believe, no more effectual method than this of preventing the wound from healing.

I recently saw a good example of this. The patient was a young man, who consulted me for a fistula which would not heal. He had been operated upon three times by a medical man in the country, and had been laid up in bed for over six months. On examination I found a perfectly simple fistula, which had been quite correctly operated upon, and which should have healed in three or four weeks. There seemed no reason for its not having healed, and after making certain that no side tracks had been overlooked I suspected that vigorous plugging was the cause of the trouble. Accordingly I kept him in bed, and had the wound very lightly dressed twice daily with a small piece of wool soaked in sterilised olive oil, with the result that the wound was completely healed in less than three weeks.

The wound should never be plugged, but a small flake of sterilised wool should be gently laid in the deeper parts of the wound, so as to prevent premature healing of the more superficial parts. When granulation and healing have

[2] Brit. Med. Jour., July, 1887.

commenced it is important that the delicate new skin at the growing edges should not be damaged, as it easily can be, by the application and removal of the dressing, or by the application of antiseptics. One of the best dressings at this stage is wool soaked in sterilised oil. The oil protects the delicate granulations and prevents their being damaged when the dressings are removed. If, as is sometimes the case, the wound shows a tendency to stop healing, some stimulating dressing should be applied, such as pure ichthyol, lotio rubra or Friar's balsam, but it should not be applied too frequently. When the wound is nearly healed I prefer to put no dressing into the wound, but only to apply a pad of wool over the anus, any tendency to bridging being prevented by the application of a probe if necessary. The patient should not be allowed to sit up or walk until the wound is soundly healed. It is often a great temptation, both to the medical man and the patient, to allow the latter to get about a little when the wound is nearly healed, but this often results in the wound breaking down again or refusing to heal further. The reason for this is that the rectal veins have no valves, and consequently in the erect position there is considerable pressure, from the effect of gravity, on the column of blood in the large venous trunks; and this extra pressure, by interfering with the circulation through the tissues of the wound, delays the healing. If the fistula has been sewn up the after-treatment is the same as for any other sutured wound.

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GRAPHIC RECORDS OF RESPIRATORY PARALYSIS.

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PARALYSIS of the respiratory muscles may not be marked by any very obvious signs, and even when suspected its presence or absence may not be easy to determine, especially in the milder forms. The two chief varieties—namely, that in which the diaphragm is paralysed and that in which the costal muscles are paralysed—may be easily recognised by means of graphic records. The instrument I have used is Mackenzie's ink polygraph. Two rubber bags attached by rubber tubing to the tambours are used. One bag, slightly inflated, is placed over the lower part of the abdomen and fixed in position with a flannel bandage. The other is placed over the chest about the mid-sternal region and similarly fixed.

Under normal conditions of respiration a double tracing similar to that shown in Fig. 1 will be obtained. Inspiration is indicated by the upstroke (I) of the curve, expiration

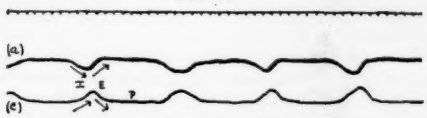
FIG. 1.

Tracing of (a) normal abdominal, and (c) costal breathing.

by the downstroke (E), and the period of pause (P) is the more or less horizontal part of the tracing. The inspiratory-expiratory rise and fall will always be present, while the tracing of the pause period will vary greatly with the rate of the breathing and the rate at which the tracing paper is moving. As regards the character of the tracings, it will be seen that they follow similar curves, because the abdomen and the thorax expand simultaneously and diminish simultaneously. As indicated by the arrow heads in Fig. 1 the two pens are always moving in the same line of curve, every rise in the one being accompanied by a rise in the other, and so on. While the tracing is being taken one can see the two pens rising and falling on the paper at the same time, and at a glance one can tell that the respiratory movements are normal in direction. In order to gain information from watching the movements of the pens in other than normal conditions it is advisable always to use the one tambour for abdominal respiration and the other for thoracic. In the tracings given here the upper line always represents the abdominal breathing, and the lower the costal.

Fig. 2 is a tracing taken from a boy two years old who was suffering from paralysis of the diaphragm after an attack

FIG. 2.

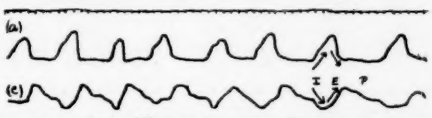


Tracing in paralysis of the diaphragm. The abdominal curve (a) is inverted; the costal (c) is normal.

of diphtheria. Some discussion had arisen as to whether the diaphragm was really paralysed or not. The tracing showed at a glance the characteristic change in the curve due to the loss of diaphragmatic action. The lower of the tracings, taken from the thorax, shows a perfectly normal condition. The upper one, taken from the abdomen, shows a series of inverted curves. Inspiration is here marked by a descent and expiration by an ascent of the curve, while the pause occupies the highest part of the tracing. As indicated by the arrow heads, the two pens during inspiration are moving towards each other, and during expiration are moving away from each other. When one watched the movements of the pens the same thing was shown even more strikingly than in the tracing, and the contrast with the movements seen in normal respiration was very marked. We find, then, a completely inverted tracing of the abdominal movement in paralysis of the diaphragm. The explanation is that in diaphragmatic paralysis the abdomen sinks in during inspiration and expands during expiration.

The result of paralysis of the intercostal muscles, as indicated by graphic methods, is shown in Fig. 3. This

FIG. 3.



Tracing in paralysis of the costal muscles. The abdominal curve (a) is normal, the costal (c) is inverted.

tracing was taken from a case of acute ascending poliomyelitis, the patient being a girl aged 16 years. The abdominal tracing is of normal type, and there was no doubt clinically that the diaphragm was acting well. At first sight it might appear that the costal tracing is also normal. If, however, the curves are compared with those from the abdomen it will be seen that they are completely inverted. Inspiration is marked by a downstroke and expiration by an upstroke. As indicated by the arrow-heads, the two pens during inspiration are moving away from each other, and during expiration are moving towards each other. This is exactly the opposite movement from that associated with paralysis of the diaphragm, and is quite different from the condition in normal respiration. One often has considerable difficulty clinically in telling by means of inspection and palpation when and how far intercostal paralysis is present. A tracing such as the above gives clear and definite evidence of the costal movements and their relation to those of the abdomen. In intercostal paralysis the sterno-mastoid and scalene muscles fix the upper part of the thorax, and the diaphragmatic movement brings down and inflates the lung. This is accompanied by a falling in of the thoracic wall from atmospheric pressure, and the period is marked in the costal tracing by the downward stroke. The more sudden upstroke during expiration would seem to indicate a rebound on the part of the ribs when the diaphragmatic traction was removed and the external abdominal muscles contracted. A week after the above tracing was taken I proceeded to take another, and found that costal action, although still defective, was of the normal type, as shown by the symmetrical nature of the curves.

Wimpole-street, W.

A ROUTINE METHOD OF EXAMINATION IN GONORRHŒA IN THE MALE AS A GUIDE TO TREATMENT.

BY FREDERICK H. PICKIN, M.R.C.S. ENG., L.R.C.P. LOND.

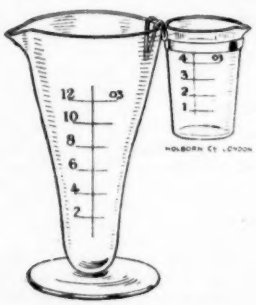
THE steadily increasing recognition of the importance of gonorrhœa as a disease adds another responsibility to the burden of the medical man. Since Neisser's discovery of the gonococcus the way has been paved to the treatment and cure of gonorrhœa on rational lines, and a practitioner who undertakes the treatment of this disease must base the management of his cases upon a systematic examination of the whole urethra and bladder. Especially is this important in chronic cases, in gleets, and in recurrent discharges.

The method to be described is simple and efficient, and is designed to ascertain both the stage and the extent of the disease through an examination of the anterior urethra (i.e., from the meatus to the sphincter urethræ), the posterior urethra, and the bladder by means of Sir Henry Thompson's two-glass test, preceded (except in the acute stages) by a washing clean of the anterior urethra. In the acute stage this test should be applied daily when possible so as to note the extent of the mischief and the effect of the treatment adopted. The patient is instructed to pass from 4 to 5 ounces of his urine into one glass and the remainder into a second glass. The deductions to be drawn from an inspection of the two glasses may be tabulated as follows:—

Glass 1.	Glass 2.	Deduction.
Turbid	Clear and bright.	Acute anterior urethritis.
,,	Turbid—becomes clear on addition of acetic acid.	Acute anterior urethritis and phosphaturia.
,,	Hazy or turbid (but less than in Glass 1) not cleared by acetic acid.	Acute anterior and posterior urethritis.
,,	Turbid (turbidity equal to or greater than Glass 1).	Acute anterior and posterior urethritis and cystitis.

This valuable test is often neglected in private practice, because (1) the patient always finds it unpleasant to have to stop his flow of urine and very often is unable to do so; (2) in changing glasses accidents frequently occur, one or other glass being spilled or even dropped on to the floor, and this is not to be wondered at in a nervous patient attempting a strange manœuvre while his mind is mainly occupied with the interruption of his stream; and (3) it is stated in text-books that the test must be applied to the first urine passed in the morning—as a rule, this urine is not available in the consulting-room.

I have completely overcome the first two objections by using a handy two-glass test beaker made for me by the



Holborn Surgical Instrument Company. As will be seen in the accompanying illustration the smaller glass can be attached by a simple device to an ordinary glass measure which becomes the second glass for the test. By grasping the base of the beaker the patient is enabled to hold the two glasses comfortably in one hand and to direct his urine into first one and then the other without stopping the flow, and the practitioner has his two glasses conveniently side by side for inspection and comparison. As to the third objection, the conclusions tabulated in this article apply to urine passed at any time of the day provided that the patient has collected a good supply. In judging the progress of a case it is important that the patient should present himself for examination about the same time of day on each occasion.

The test should be applied in chronic cases and gleets as follows: (1) Before he is allowed to pass urine the patient is placed upon a couch and his anterior urethra washed clear with a weak boric acid solution, the washings being collected in a small urine glass or measure. This is done with a glass syringe with back flow. A capital syringe for the purpose can be made by attaching a rubber bulb to a glass urethral irrigating nozzle with back flow, or it can, of course, be done by means of an irrigating apparatus with a back flow nozzle. Having set aside the washings collected (2) the patient is told to pass his urine into two glasses as in acute cases.

An examination of the three glasses will settle the region affected and supply a correct and reliable indication as to further steps in investigation and treatment. The deduction to be drawn from an examination by this method may be tabulated as follows:—

Anterior urethral washings.	Urine Glass 1.	Urine Glass 2.	Deduction.
Turbid.	Turbid or hazy.	Clear or slightly hazy.	Anterior and posterior urethra affected. Bladder free.
,,	Turbid.	Turbid (not cleared by acetic acid).	Anterior and posterior urethra affected. Bladder affected. Examine for mixed infection.
,,	Turbid or hazy. Partially cleared by acetic acid.	Turbid (cleared by adding acetic acid).	Anterior and posterior urethra affected, and phosphaturia.
Turbid or hazy, with shreds and flakes.	Clear; no shreds or flakes.	Clear.	Anterior urethra alone affected. Examine for early stricture.
Turbid or hazy, with shreds or flakes.	Hazy or clear, with shreds or flakes.	,,	Anterior and posterior urethra affected.
Clear; no shreds or flakes.	,,	,,	Posterior urethra only affected. Examine prostate.
Hazy, with flakes or shreds.	Hazy, with many flakes or shreds.	Less hazy, with few flakes or shreds.	Anterior and posterior affected. Examine urine for mixed infection.

It is impossible to make a careful distinction between an anterior and posterior affection if, in a chronic case, the urine is passed into the two glasses without a preliminary anterior urethral washing, because in many cases the urine in passing will wash out both the anterior and posterior urethra into Glass 1, and the urine in Glass 2 will be clear and free from shreds or flakes, although the posterior urethra may be affected. A preliminary anterior washing enables the distinction to be made.

The collection of urine for examination by the two-glass method has many advantages. When a man has to undergo a medical examination for life assurance or any other reason the urine in the smaller glass may clearly show one or two tell-tale flakes (that might escape notice in the bulk) and so lead to the disclosure of an important venereal history. Apart from the special consideration of gonorrhœa it provides in the second glass a genuine bladder specimen free from urethral contamination. In all cases of pyuria and hæmaturia the source of the pus or blood can frequently be detected by collecting the first and last portions of urine in separate vessels, and an excellent arrangement for this purpose can be made by attaching a small glass on either side of a larger beaker into which the intermediate and main portion of the specimen to be examined is passed.

Victoria-street, S.W.

ELIMINATION OF ERRORS IN THE X RAY DIAGNOSIS OF URINARY CALCULUS.

BY EDWARD W. H. SHENTON, M.R.C.S. ENG., L.R.C.P. LOND.,
SENIOR RADIOGRAPHER, GUY'S HOSPITAL.

Now that X ray examination for urinary calculus is recognised as a necessity it is useless to discourse upon the advantages both to patient and surgeon of systematic search. The continual surprises which the radiographer provides prove the advisability of examining all cases of abdominal pain or unexplained urinary symptoms. By a process of elimination the truth is sought in such complaints, and if calculus can be knocked off the list at the start much time and trouble will be saved. For some years the X rays gave reliable help only in a positive sense, and their use as negative evidence was worthless. To-day this is not so, and where all the conditions are favourable the negative diagnosis is perfectly trustworthy. However, it must be admitted that to get absolutely favourable conditions is by no means an easy task and taxes the resources of the radiographer to the utmost. Mistakes do occur, and the proper course is to consider their causes and how to avoid them.

Many years ago I wrote the first article on calculus from an X ray point of view and brought forward an analysis of 200 cases. Since then many thousands of patients have been through my hands, and on the whole the records of failure are few and becoming fewer. It is not, of course, possible to prove the correctness of the X ray diagnosis in every case; patients may refuse operation or a negative report may deter the surgeon from operating, but dealing with the proven cases both positive and negative results show a high percentage of accuracy.

The primary cause of failure would seem to be inadequate apparatus; this includes good apparatus temporarily deranged, as must sometimes happen. One has many times looked upon the screen and not observed a calculus which has become apparent upon pushing a little extra current through the tube. This points to the desirability of a very powerful source of current, such as can be obtained from a high-tension generator of the "Snook" type. The next most likely cause of failure is the X ray density of the patient, which is generally, but not always, associated with bulk. The specific gravity of the tissues is the factor which determines the amount of obstruction to the rays.

The size and quality of the calculus have a certain bearing upon the success of the operation, but though certain calculi are theoretically transparent (for example, uric acid), in practice they almost always contain some other salt that is opaque. This is a very fortunate fact and leads to the discovery of many. As far as size is concerned it is difficult to give a minimum, and one has seen a collection of mustard-seed calculi contained in a blood-clot in the ureter. If after careful and systematic examination, with suitable apparatus working as it should, no calculus is found, one's experience shows that rarely anything larger than crystals can be present, and operation is usually unsuccessful.

Lastly, under the heading of failure may come other opaque bodies in the abdomen, such as calcified glands, phleboliths, and intestinal matter. Regarding the last, as so many patients with abdominal pain are given bismuth medicinally, it is as well to be careful not so much to *purge*[1] the intestinal canal as to re-examine a few days later, when, if intestinal in origin, the foreign bodies will have passed on. One has often on the screen seen shot in the intestine, no doubt from game recently consumed, and the fact is usefully borne in mind. Incidentally it shows how easily small objects are detected on the screen. Calcified glands and other little opacities do not as a rule occur with sufficient frequency to cause much trouble. The radiographer will not be led astray if he examines the object upon the screen during forced respiration and notes the movement in relation to the kidney. In very few cases has unnecessary operation been incurred from these causes.

[1] In my opinion the administration of a purge or enema does not assist much, as instead of a uniform grey background on which calculi show well, a very mottled effect may be produced in which calculi are easily overlooked on screen or plate.

Taking as the primary cause of failure inadequate apparatus, it is important to see how far this source of error can be prevented. The operator must have a sufficiency of X ray light and facilities for applying it to the patient so that he is not handicapped during an examination. He must be able to bring tube and patient into any relative position, and the ordinary movements provided on the couch of commerce are not enough. Having been a sufficient length of time in a darkened room, or a room lit only with blue light (I instituted the use of blue light in X ray rooms some years ago as being the nearest complementary colour to the yellow of the fluorescent screen), the search for calculi should be made with a small diaphragm over the tube, say 2½ to 3 inches in diameter, the tube being brought as close as possible to the patient's abdomen as he lies prone on the couch. The screen is placed upon the back and pressed in close relation to it. As each new area is examined the patient is asked to take a deep breath, for experience shows that a moving calculus is more easily detected than a stationary one. The whole of the urinary system is gone over in this way, heavy pressure being made over the gluteal muscles when the bladder is being examined. If the light does not come through the pelvis satisfactorily and there is a risk of bone hiding a calculus, the patient should be tilted and the diaphragm moved in relation to the tube, when surprisingly different effects may be obtained. The bladder should be examined with the patient in the supine position, and again with manipulation of diaphragm and tilting of patient.

After a thorough search of this kind the tube may be getting warm and giving a picture of less brilliancy but more contrast. In this condition a larger diaphragm can be used and a larger area examined and photographed, but it is highly improbable that after the small diaphragm search anything additional will be found with photography. The importance of screen examination with small diaphragm and deep inspiration is to my mind of such paramount importance that I would willingly relinquish the photographic part of the process, which is more for permanent record and convincing those who have not been present at the screening. Not infrequently I have been unable to secure a photograph of a very easily screen-detected calculus.

Regarding the source of X rays, the old-fashioned coil is in my opinion unsuitable and unreliable. Some of the more modern types are better, but the high-tension generator, especially the genuine "Snook," is by far and away the most reliable when used in conjunction with a suitable tube, such as the Gundelach and the Kent-Cox. The great heating power of this current makes most types of tubes unsatisfactory, and even with the makes mentioned the observer must look quickly and not run them longer than is absolutely necessary. I make a practice of finding the area it is desirable to examine with a weak current running through the tube, and then, as the patient breathes deeply, momentarily put a larger volume of current through. This gives a brilliant image which the retina retains sufficiently long, and the manœuvre repeated several times will seldom fail to detect a very small calculus if in the field.

This method has been in daily use for several years in my department at Guy's Hospital, and the percentage of undetected calculi is so small as to be negligible. Time has proved that its rigid adoption has done much to bring down the percentage of failure inherent to the older photographic methods. During last year a fire, which destroyed the "Snook" generator, threw us back on the older type of apparatus and methods for some weeks, and the failures cropped up again with the same regularity as of old—convincing testimony in favour of the modern installation. This system of screen examination for urinary calculus on a specially devised couch is in daily use at Guy's Hospital by my colleague, Mr. H. N. Eccles, and myself, and can be inspected by those interested.

Harley-street, W.

EPSOM COLLEGE.—Founders' Day will be celebrated at Epsom College on Saturday, July 26th, from 2.30 to 6.30 P.M. After service in the College Chapel the distribution of prizes will take place at 3.15 P.M. in the big schoolroom. Refreshments will be served in the College grounds.

Reviews and Notices of Books.

The Modern Hospital: its Inspiration; its Architecture; its Equipment; its Operation. By JOHN ALLAN HORNSBY, M.D., and RICHARD E. SCHMIDT, architect. With 207 illustrations. London and Philadelphia: W. B. Saunders Company. 1913. Pp. 644. Price 30*s.* net.

THE coöperation of medical man and architect in designing institutions for the reception of the sick was recognised officially in this country a long time ago by the terms of the King Edward VII. sanatorium prize competition; and beyond all doubt, when both parties are really experts, it is the most satisfactory way of setting about hospital construction. In this admirable volume, as the subtitle indicates, many points besides questions of planning, building, and arranging a modern hospital are taken into consideration. In fact, the sections over which the two authors may be supposed to have collaborated comprise a good deal fewer pages than those for which Dr. Hornsby has presumably been alone responsible. If this is the case, we can but acknowledge immediately the energy, ability, and thoroughness with which the latter has applied himself to the minutest details as well as the broad principles of hospital management. His knowledge of this complex branch of administrative medicine entitles him to the highest respect. American hospitals are run upon lines nowhere perhaps exactly similar to, and often very dissimilar from, those followed by the voluntary hospitals of Great Britain; and in consequence there is much in this volume that is hardly applicable to our own position. Especially is this the case in dealing with problems of finance, with the admission of outside physicians and surgeons to treat their own patients in hospital wards, and with nursing. Even when dealing with matters common to both systems there are points in regard to which Dr. Hornsby's judgment may not commend itself to all British administrators. But there will be ungrudging admission of his sincerity, his wide views, and his industry.

The book, say the authors themselves, has the weakness of being a record almost wholly of the experiences of two men. The methods adopted in the Michael Reese Hospital are described throughout, and there is not much in the way of quotation of or comparison with the views of other experts and the experiences of other hospitals. This is decidedly a weakness, but it also results in an authoritative and a personal tone which brings compensating advantages.

To pass under review every interesting paragraph, or even every important section, of this book would require almost a volume in itself. It is only possible to select a few topics here and there from among the thousand and one which are discussed by the authors. In the chapter on hospital construction and design a valuable feature is the attention paid throughout to the cost of different materials, systems of building, styles of finish, and so on. The operating suite is always one of the most interesting and least stereotyped of hospital units. That suggested in this book seems to us to be open to criticism. The anæsthetising rooms open on to a corridor along which the patient must be wheeled 32 feet before he reaches the door of any of the three operating theatres. This corridor is 4½ feet wide, and has ten other doors opening on to it, including those of the sterilising room, the surgeons' preparation room, and the instrument room. It must inevitably be a scene of bustling activity on an operating day and distinctly draughty. This corridor constitutes the weakest spot in a design which seems to us in other respects faulty; a more compact arrangement would be preferable and quite practicable.

American hospitals have provided in recent years some novel and interesting experiments in the selection of medical staffs. The author favours the principle of one supreme head of each main department—surgery, medicine, obstetrics, and so on—with two or three "associates" under him, each of whom in turn has two or three assistants who control the resident staff and students. No one can deny that the system in many instances has succeeded admirably in America, but it may be doubted whether it would answer as well in democratic England. Another American system of staff appointment is stated to have been adopted with very great success at Chicago. This is an open examination in each specialty—whether conducted annually or quinquennially (or at any other interval) is not stated—in which the visiting staff have to defend their appointments against the competition of other candidates. To equalise the disadvantages of a man in active practice called upon to sit for examination alongside his juniors fresh from the schools, 40 per cent. of the marks are given for "experience," towards which are counted marks for connexion with teaching institutions, original work, years already on the staff, and so on. The remaining 60 per cent. is given for the written examination. It is not surprising that this system was strenuously opposed by the medical profession, but it was carried through, and the results are described in glowing terms.

The sections upon the preparation of catgut are excellent, and the remarks upon rubber gloves are suggestive, and hospital superintendents may well note Dr. Hornsby's hints for checkmating chicanery in the supply of the latter. The section on anæsthetics points a useful moral in respect of the cost of gas-oxygen anæsthesia, a much-favoured method just now in the United States. On the average, it seems, this method of anæsthesia costs about 17*s.* 6*d.* an hour in the most expert and economical hands, and more than that if the institution is not big enough to buy in large quantities on the best wholesale terms. The instructions for procuring anæsthesia seem out of place in this book, which might just as reasonably include the technique of gastro-enterostomy or the diagnosis of pneumonia.

The sections on the purchase of supplies, on contracts and tenders, on the qualities that should be demanded of such articles as blankets, linens, wools, and gauzes, and on the ways of detecting fraudulent substitution and adulteration, are full of valuable information. The author's talent for detail and insistence upon economy have evidently been well employed in this branch of hospital supervision. The plea for allowing young women to start nursing at 18 is not likely to find favour among British administrators, but the book shows much sound sense on the medical examination of probationers before they are accepted for training. Hospital accountancy is another subject which is dealt with thoroughly; and, indeed, the principal impressions retained on closing these pages are respect for the range of the authors' knowledge and a feeling that depth has nowhere been sacrificed to versatility. Which means high praise.

Die Prostitution. Von Dr. Med. IWAN BLOCH. Vol. I. Berlin: Louis Marcus. 1912. Pp. 870. Price 10 marks.

THE first two volumes of the series of handbooks dealing with the problems of sex which Dr. Iwan Bloch is editing are concerned with the important subject of prostitution. As Dr. Bloch, who is himself the author of this volume, points out in his preface, the problem of prostitution is of paramount interest in all sex questions, and he thinks the time has come when it should be considered exhaustively from the scientific standpoint. This is to be the aim of these two volumes, and the first, at any

rate, lacks nothing in completeness. The author has a high reputation as an authority on the history of medicine, and this book bears many marks of his erudition. The history of prostitution is considered in detail among primitive people, among the Greeks and Romans and during the Middle Ages. In the first chapter the origin of modern prostitution and the exact definition of the term is dealt with, and then its organisation in the earliest times is discussed. The sexual question among the ancients and its relation to the recognition and repression of prostitution is next considered, while the remaining chapters contain a history of the subject in all its bearings during the Middle Ages.

The work bears so clear a stamp of industry and contains so much information that it cannot fail to remain authoritative for many years. Among the most interesting of the problems discussed is that of the effect of the spread of socialistic ideas and the modern tendency to the emancipation of women upon the view which will be taken in the future of this so-called necessary evil. Is it in reality a necessity, and what are the chances of its ever disappearing? These and kindred problems must remain for future years to decide, but anyone who is interested in them will find many ideas worthy of his attention in this book. At the present time there is an increasing number of publications dealing with these and kindred subjects from the scientific point of view, and anyone honestly endeavouring to solve the difficult problems concerned with sex should make himself familiar with their whole history. For this reason books of this class, although of necessity they must contain a large amount of often unpleasant detail the exact relevancy of which at first sight may not be quite evident, yet serve a useful purpose, and the thanks of all the workers in this hitherto rather neglected field of medical science are due to Dr. Iwan Bloch and his collaborators for their labours. The book has a good index of subjects and authors, and there are many thousands of references.

La Sécrétion Pancréatique. Par ÉMILE F. TERROINE. (*Questions Biologiques Actuelles.* Collection de Monographies publiées sous la direction de M. A. DASTRE, Membre de l'Institut, Professeur à la Sorbonne.) Paris: A. Hermann et Fils. 1913. Pp. 133. Price 5 francs.

WE have already had occasion to review other volumes of the interesting up-to-date series of "Questions Biologiques Actuelles." This volume on the pancreatic secretion deals strictly with this subject and leaves aside other functions of this gland, which differs essentially in its mechanism from that of the salivary gland, so much so that a knowledge of the mechanism of the pancreatic secretion has profoundly modified the views of biologists on the question of secretion. With the discovery of the hormone "secretin" by Bayliss and Starling in 1902 the whole question of secretion appeared in a new light, for it added the conception of what the author calls a "chemical reflex" to the already well-known "nervous reflex." No doubt the term "chemical reflex," to indicate the action of a specific hormone, is convenient, and it has "caught on" in French works. The author has endeavoured to set forth in considerable detail the various investigations in the subject from the time of Regner de Graaf (1671), and has endeavoured to enumerate the results that are assured, as distinguished from the many points that are still matters of controversy. A useful feature in the text is that all dates are printed in bold black type. The whole essay is clearly expressed, and the author shows considerable acumen in the discussion of the complex results obtained by different observers.

The characters of the juice itself are first described. An account is then given of the normal excitants. The question as to the nervous or chemical factor, or both, in the excito-secretory process is next discussed, and the author comes to the conclusion that no extrinsic nervous action is necessary in connexion with the action of hydrochloric acid in the formation of secretin. The localisation, absorption, course and mode of action of secretin are then discussed, and its effects are compared with those of the extracts of some other organs, and the author comes to the conclusion that no irrefutable proof has been given that secretin acts on any other glandular system than on the intestine and the glands in relation to it. It excites not only the pancreas, but also the intestinal glands and the liver. Those substances which excite lymphatic glands have nothing in common with the excito-secretory substance of the pancreas. There seems to be no positive proof of the existence of a nervous mechanism. At most, the existence of such a mechanism is extremely disputable, although, of course, extrinsic nervous influences powerfully affect the pancreatic secretion.

This is a pleasantly written, comprehensive, but not too extensive monograph, which should be in the hands of all physiologists. It deals in no way with the pathology of the secretion. It also shows how much there is yet left unknown. A bibliography of about 14 pages, arranged according to chapters, concludes an excellent compilation and envisagement of the present position of the "pancreatic secretion."

Fortschritte der Naturwissenschaftlichen Forschung. Herausgegeben von Prof. Dr. E. ABDERHALDEN. Halle a.S. Acter Band. 217 Textabbildungen und 1 Tafel. Berlin und Wien: Urban und Schwarzenberg. 1913. Pp. 308. Price, paper, 15 marks; bound, 17 marks.

THE contents of this Band are made up of the following six papers: The Present Position of Investigations in Metallography, by Dr. W. Guertler, of Berlin-Grünewald; Our Knowledge regarding the Oldest Tetrapods or Quadrupeds, by Professor F. Broili, of Munich; the Scientific and Economic Importance of the Economics of Lakes, by Dr. W. Cronheim, of Berlin, who has died since the article was written; the Galls of Plants, by Professor Dr. E. Küster, of Bonn; the Pairing and the Deposition of Eggs by Freshwater Insects, by Dr. C. Wesenberg-Lund, of Hilleröd, Denmark; and Architecture and Earthquakes, by Professor F. Frech, of Breslau.

Professor Broili's contribution on the oldest quadrupeds extends to over 40 pages, is well illustrated, and gives a very full account of the footprints and fossilised parts of the skeleton and teeth of these primitive quadrupeds as they occur in the older geological strata. The article should interest geologists, palæontologists, and comparative anatomists. As to the economy of lakes, this is treated from the point of their animal and vegetable life and the importance of non-contamination of inland waters. The paper by Dr. C. Wesenberg-Lund is quite one of the most interesting articles and should find appreciation amongst those who are interested in insect life. It will be seen that though there is much of general interest, there is nothing that specially bears upon medicine in this volume.

Muscle Spasm and Degeneration in Intrathoracic Inflammations and Light Touch Palpation. By FRANCIS MARINI POTTINGER, A.M., M.D., LL.D., Medical Director of the Pottinger Sanatorium for Diseases of the Lungs and Throat. London: Henry Kimpton. 1912. Pp. 105. Price 9*s*.

IN this volume Dr. Pottinger records the results of his own observations during three years. He describes certain changes which he has noted in the muscles overlying inflammatory areas of the lungs and pleura. The conditions which he has recorded are a spasm of the muscles and thorax on the affected side when the lungs or pleura are acutely inflamed, and a degeneration of the same when the process has passed

over into a chronic state. He maintains that the muscles of the neck and those covering the chest show all gradations of change from the acute spasm to severe degeneration, according to the acuteness of the inflammatory process affecting the pulmonary parenchyma and pleura. Therefore, he says, the same thorax presents widely different conditions in different groups of muscles; further, these changes, while perceived by inspection and ordinary palpation, become especially noticeable when examined by light touch palpation. From these premises he maintains that these changes are of importance as diagnostic aids, and that they exert an influence in producing and altering the usual well-established physical signs.

Dr. Pottinger's observations are worthy of notice by other observers. The "flattening" of the chest over the side of a tuberculous lesion is, of course, generally recognised, but his explanations are not the same as those which have been generally accepted. He is of opinion that the muscles attached to the upper part of the chest are in a state of degeneration, and he ascribes this condition as being due, at least partly, to the continuous irritation caused by an impulse from the lung and pleura keeping up muscle stimulation over a long period of time, and as being similar "to the degeneration following excessive work," although he thinks that "it might be partly a trophic disturbance analogous to the motor and sensory changes." Dr. Pottinger is very candid in discussing this matter, and quotes various observers who have attempted to detect the muscle change, and have been unable to satisfy themselves as to its value. This is a subject that might well be further investigated.

A description is given of "light touch palpation," and the possibility and practicability of delimiting normal organs and diagnosing diseased conditions within the chest and abdomen by very light touch. This method of diagnosis has been cultivated by other physicians, but in any very light percussion it is difficult entirely to eliminate the personal equation, and therefore the results are not so universally accepted as are those of other methods of physical examination.

Die Entstehung der sphärischen Refraktionen des Menschlichen Auges. By Dr. ADOLF STEIGER, Ophthalmic Surgeon in Zürich. Berlin: S. Karger. 1913. Pp. 567. Price, unbound, 18 marks; bound, 20 marks.

IT is the lot of the reviewer of ophthalmic works to criticise many books on refraction. In these it is the exception to find any great originality of treatment, for most are of an elementary character intended for the instruction of the medical student. The present work belongs to a more select category, for it is an attempt to account for the varieties of spherical refraction—hypermetropia, emmetropia, and myopia—on biological grounds. The many theories on the subject are themselves sufficient proof that none is wholly satisfactory. Dr. Steiger is not the first to whom it has appeared evident that, at any rate, the lower grades of ametropia should be regarded as natural variations in the evolutionary sense of the word. Mauthner long ago pointed out that since the radius of curvature of the cornea varies from 7 to 8·5 mm. in length, the length of the emmetropic eye should vary from 22·25 to 26·24 mm., and these numbers agree well with actual measurements by Schnabel and Herrnheiser; yet the student is generally taught that the emmetropic eye is 23 mm. long. Dr. Steiger is the first to our knowledge who has attempted to substantiate the biological argument. Probably many others have been discouraged by the complexity of the problem, and it must be admitted that the author, by dismissing somewhat cavalierly the possibility of change in position and refractivity of the lens and admitting only variations in the corneal curvature and length of the eye, simplifies the problem, and perhaps to an extent more than facts fully justify. Be that as it may, he has made a very valuable contribution to this branch of ophthalmology.

The book is divided into six parts, which deal with statistics, current theories of the causation of myopia, heredity, the significance of variation in the theory of refraction, and the developmental foundations of the genesis of various types of spherical refraction. The author's material for observation consisted of 46,000 school children of 6 or 7 years of age, many of whom were again examined five and a half years later. His experience and very exhaustive analysis of published statistics led him to the conclusion that the refraction must vary within wide limits as a normal process, that the differences between uneducated and educated people (Natur- und Kulturvolker) as regards their conditions of refraction are independent of the individual, and that these conditions are present before near work is embarked upon; in fact, that they are to be explained on phylogenetic, not on ontogenetic grounds. He shows that the corneal refraction of 5000 eyes of children aged 6–7 years follows a binomial curve—that is, a curve showing a symmetrical rise and fall. Combining this result with the analysis of the actual refractions, he finds that the most favourable total refraction—i.e., emmetropia—is due not to a fixed combination of two constants, but to a whole series of very diverse combinations of various corneal refractions with corresponding axial lengths.

We hope that the ponderous fashion in which the argument is set forth will not prevent its receiving the attention it merits. The broad biological aspects of this and other problems of ophthalmology—we may cite squint as an example—have been rather neglected. They have a very definite bearing upon treatment, and may account, for instance, for the not infrequent failure of the orthoptic treatment of the latter disorder.

Lehrbuch der Chirurgie. Herausgegeben von Professor WULLSTEIN, Halle, und Professor WILMS, Heidelberg. Dritte umgearbeitete Auflage. Jena: Gustav Fischer. 1912. Vol. I., pp. 660, price 10.50 marks; Vol. II., pp. 496, price 8 marks; Vol. III., pp. 622, price 11 marks.

THIS treatise on surgery occupies a very high position in German surgical literature, and the appearance of three editions in little more than four years testifies that the work is appreciated by the profession. There have appeared Hungarian and Russian translations, and we are informed that an Italian version is in preparation, so there is still further evidence of the popularity of the book. The great merit of the work is that while the several subjects have been entrusted to specialists, very great care has been taken that the attention devoted to each section is maintained at a very uniform level, so that no subject has been neglected and none treated too extensively. The book is adequately illustrated, as it contains more than 1000 illustrations, and many of these are in colour. We would only suggest that a general index to the three volumes would be an advantage.

Ionic Medication: The Principles of the Method and an Account of the Clinical Results Obtained. By H. LEWIS JONES, M.D. Cantab. London: H. K. Lewis. 1913. Pp. 151. Price 5*s.* net.

THIS volume will be welcomed for many reasons. The writings of Dr. Lewis Jones have done more than any others to give medical electricity the position it now holds in this country, and it is also greatly due to him that ionic medication has made such rapid strides towards professional favour. With the increasing popularity of this form of

medication has arisen a demand for a complete treatise on the subject, and this demand is now completely satisfied by the volume before us.

The author has avoided theoretical discussions as far as possible, and has confined himself for the most part to practical considerations and results. As might be expected, the conditions treated are nearly all of a superficial character, and indeed it is only in these that the method should be used. The author rightly makes his protest against the way subjects of chronic polyarticular arthritis are exploited, mostly by unqualified persons who practise what they are pleased to call ionic medication. The medical man who is anxious to improve his knowledge of this method will here find full details of procedure, apparatus, and technique in the first two chapters. The use of the metallic antiseptic ions is dealt with in Chapter III., and then follow others on the ions of other metals—chlorine, iodine, and so on—each of the more important ions having a chapter to itself.

We unhesitatingly recommend this useful volume to all who are interested in the application of electricity to the cure of disease.

Handbuch der Speziellen Pathologie des Harns. Von Dr. Med. FERDINAND BLUMENTHAL, Universitäts Professor in Berlin. Berlin und Wien: Urban und Schwarzenberg. 1913. Pp. 492. Price, paper, 15 marks; bound, 17 marks.

THIS book deals with the changes which occur in the urine in various conditions of disease. It commences with the urinary changes in the infectious diseases, such as typhoid fever, pneumonia, tetanus, and syphilis; then come the changes in starvation; afterwards those found in diseases of metabolism, such as diabetes, gout, and so on. Chapters follow on the urinary changes in patients suffering from malignant growths, in chlorosis, in diseases of the stomach and liver and of the nervous system. A chapter on the effect of disease of the kidney itself concludes the volume. The book is very well written, and will be valuable to those working in this branch of medicine, for numerous references to papers and treatises are given. The work is supplementary to a volume published by the same author on the general pathology of the urine.

LIBRARY TABLE.

The Insanity of Genius. By the late J. F. NISBET. Sixth edition. London: Stanley Paul and Co. Pp. 341. Price 5*s.* net.—This work, first published in 1891, has now reached its sixth edition. Its interest chiefly lies in the short biographical notices of various men of genius which it contains, and which draw attention to the eccentricities of many such persons and the mental failings, both of themselves and other members of their families. The psychological pathology of the book is scarcely up to date, and few would nowadays allow that, except superficially, the conditions of mind in insanity and in genius have much in common. The outstanding symptom in mental defect is psychic inhibition, while the outstanding manifestation of genius is the precise opposite. So, too, the modern metaphysician would probably be not a little surprised to learn that "when Fritsch and Hitzig bared a dog's brain upon their dissecting-table and found that an electric stimulus applied to certain convolutions caused spasmodic movements of the opposite side of the animal's body, they laid the foundation of the modern system of metaphysics." The reader must wonder what the author meant by metaphysics, or whether it can really be but recently that the conceptions dealt with by metaphysics have wonderfully widened. Medicine cannot afford to despise the magnificent work of the mid-Victorian era, and indeed it must envy some of its scientific dogmatism. What a hush of peace would pass over our field of controversies if the modernism of to-day accepted the author's statement that "in the modern theory of brain-function ..... there is no place for that bugbear of the older metaphysicians, the will."

Text-book of Diseases of the Nose, Throat, and Ear for the Use of General Practitioners. By FRANCIS R. PACKARD. Second edition. With 135 illustrations. London and Philadelphia: J. B. Lippincott Company. 1913. Pp. 377. Price 15*s.* net.—Dr. Packard has brought out a second edition of his book, which has been written to supply the needs of the post-graduate as well as the under-graduate. He gives very useful information, in an extremely readable form, of most of the diseases of the nose, throat, and ear. The work is intended for the use not of the specialist but of those who require a description neither too deep nor too learned of the more common diseases of the regions of which it treats; and for this purpose it will prove most useful.

Elementary Bacteriology and Protozoölogy: the Microbiological Causes of the Infectious Diseases. By HERBERT FOX, M.D., Director of the William Pepper Laboratory of Clinical Medicine in the University of Pennsylvania, &c. London: J. and A. Churchill. 1913. Pp. 237. Price 6*s.* 6*d.* net.—This little book on bacteriology and protozoology is intended to "give the nurse and the beginner an idea as to the nature of micro-organisms and their relation to the world's economy, especially in disease." For such uses it is well adapted. After a brief sketch of the history of our knowledge of the causes of infection the author deals briefly with general morphology and biology of micro-organisms, with methods of culture, staining, and sterilisation, with immunity, and so forth. He then gives an account of the principal pathogenic organisms, dealing first with the bacteria and afterwards with the protozoa, with a short chapter on diseases of unknown causation, such as scarlet fever and yellow fever. Finally, a glossary explanatory of the terms in use is appended. The descriptions are succinct, not to say sketchy, in places. The terms used sometimes differ from those to which we are accustomed, the bacillus tuberculosis and the B. diphtheriæ being, for example, termed respectively bacterium tuberculosis and Bact. diphtheriæ, while the micrococcus melitensis is termed bacillus melitensis. The organism of syphilis is included among the bacteria, while that of relapsing fever is accounted a protozoon. The book is clearly printed and fully illustrated, many coloured plates being included. We do not understand the statement on p. 36, "Of the saprophytes of protozoa practically nothing is known," an enormous number of forms being known which are not parasitic. And what is "glaring" mucus at the back of the throat?

Kompendium der Röntgentherapie. By Dr. H. E. SCHMIDT. Third edition. Berlin: August Hirschwald. 1913. Pp. 227. Price 5 marks.—Of the many text-books on its subject this is one of the best. As he deals exclusively with roentgentherapy the author is able to condense within 200 pages most of the best and newest work on Roentgen treatment. The indications for the treatment of the various skin diseases are fully described, as is also the technique for the irradiation of myoma and other uterine diseases.

Lessons in Elementary Hygiene and Sanitation, with Special Reference to the Tropics. By W. T. PROUT, C.M.G., M.B., C.M. Edin., Medical Adviser to the Colonial Office, late Principal Medical Officer, Sierra Leone. Third edition. London: J. and A. Churchill. 1913. Pp. 184. Price 2*s.* 6*d.* net.—This work, which is an amplification of six lectures delivered by the author in Sierra Leone, is intended for an elementary text-book to be used in schools

in the tropics, and forms an admirable handbook for all dwellers in tropical countries. The present edition is well up to date. After a brief introduction to the objects of the course, two chapters are devoted to a concise and lucid description of the general structure and working of the human body. General information follows as to the vegetable and animal parasites that are the exciting causes of so many diseases, their conditions of life and growth, modes of entrance into the body, identification, and the various methods of combating them both in and out of the body. The chapters following, on special disease germs, on malaria and other mosquito-transmitted diseases, and on intestinal parasites, apply this information, and elucidate the purpose of the various prophylactic methods in use. The descriptions of the mosquito, its varieties and life-history, and its relations to malaria, filariasis, and yellow fever, and of the tsetse fly to sleeping sickness are quite graphic and should be convincing to any intelligent person. The not unnatural questions concerning, and objections to the validity of, the mosquito theory of disease, which those who have talked much with dwellers in disease-infested tropical countries have heard over and over again—Are you sure that the mosquito is the only means of transmission, and if not, what's the use of taking so much trouble over only one source of disease? Why is that I don't get fever, although I am often bitten by mosquitoes? Why do some people get fever without being bitten by mosquitoes? Why do people have fever sometimes in uninhabited places or where there are no mosquitoes? and so forth—are carefully answered, and sources of erroneous judgment are exposed. The various intestinal parasites are dealt with in an equally clear manner. It is difficult to imagine that any intelligent person having once read these convincing statements would remain any longer a sceptic or fail to grasp the importance of the prophylactic measures that are founded thereon, and whose connexion therewith is so admirably explained. The work concludes with equally commendable chapters on the digestive system, food, water-supply, respiration, the dwelling, clothing, and personal hygiene.

Cooking Notes for V.A. Cooks. By B. H. DAVY. Exeter: M. A. Rudd and Son. 1913. Pp. 88. Price 1*s.*—Miss Davy, who is a staff officer in the Exeter division of the Voluntary Aid Organisation, has written a practical guide to cooking for the use of cooks belonging to Voluntary Aid Detachments. The notes have been found useful by the Exeter division, and the author thinks that the cooks in other divisions might find the information valuable. We go further than Miss Davy's modest prefatory words, and think that most housekeepers, and all young housekeepers, would profit by the clear instructions laid down, and the sensible information given in these notes. Miss Georgiana Buller, in a preface to the book, points out that the level of efficiency in the Voluntary Aid Detachments is higher among the nurses than among the cooks. Miss Buller is probably right, and the remark is a caustic criticism upon domestic efficiency of the present day, for it shows that a branch of work which all young women might become proficient in if they took their opportunities, or if proper opportunities were provided, is neglected, while a branch of work requiring special teaching and a special environment is embraced. We wonder how many modern housekeepers know the use and value of dripping, the way to use vegetables in stocks, the arguments for baking against roasting, the tests to apply to a range—to mention at random a few points which will be found in Miss Davy's notes, but not in the lore of many kitchens. At the end of the book there will be found some excellent recipes, and one of their chief virtues is that the instructions are frequently supplemented with their reasons. Medical men know too well the evils that follow upon bad cooking, while the strain that is laid upon modest incomes by ignorance as to the way to prepare and cook food is quite severe. Our readers will be safe in recommending this pamphlet to those of their patients and the friends of their patients who seem to need its practical guidance. This should secure a large audience for a useful handbook.

MISCELLANEOUS VOLUMES.

THE subtitle of a little work on *Youth and Sex*, by MARY SCHARLIEB, M.D., M.S. Lond., and F. ARTHUR SIBLEY, M.A., LL.D. (London and Edinburgh: T. C. and E. C. Jack. Pp. 92. Price 6*d.*), is Dangers and Safeguards for Girls and Boys, and we think it a pity that the book cannot be obtained in two parts. Mrs. Scharlieb's admirable advice might be read by all adolescent girls as well as by their parents or guardians. The portion which concerns boys, however, is not suitable for girls' reading, although good for those for whom it is intended.

Sehproben-Tafeln. Von Professor Dr. BERTHOLD KERN und Dr. REINHOLD SCHOLZ. Berlin: August Hirschwald. 1913. Pp. 15. Price 5 marks.—Professor Kern and Dr. Scholz have arranged these test types chiefly for use in testing candidates for the army and other services. They are constructed on Snellen's principles, and are little more than an arrangement of the usual letters in such a manner as to prevent the candidate from readily recognising which line of the ordinary test types he is actually reading. By this means it is hoped that fewer tables of types will suffice. That these tables should have reached a third edition is evidence of the favour with which they have been received.

The Sanitary Student's Sketch Book. By WILLIAM ROY, Inspector of Drainage and Plumber Work, Glasgow Sanitary Department. Glasgow: The "Argus" Office. Pp. 40. Price 1*s.* net.—Mr. Roy's pamphlet is the outcome of his experience as instructor of a sanitary engineering evening class, for which the illustrations here given were originally drawn. The plates embrace the following subjects: drains, traps, soil-, waste-, and antisyphon traps, joints, water-closets, flushing cisterns, the setting out of drains, sewerage, sewage disposal, heating, ventilation, water-supply, building sites and the prevention of dampness, and smoke abatement. Opposite each plate is descriptive letterpress. The building regulations and other local information for Glasgow complete the pamphlet. Not only plumbers but medical students beginning a public health course will perhaps find the work serviceable, as giving an elementary picture of the alphabet of the subject. The broad page of letterpress, however, makes it very trying to read.

JOURNALS AND MAGAZINES.

Jahreskurse für Aerztliche Fortbildung. Munich: Lehmann. Price 18 marks.—The May number is devoted to a review of nervous and mental diseases. Marburg, of Vienna, discusses the diagnosis of operable tumours of the brain, meaning those growing in the cerebral cortex, the cerebellum or cerebello-pontine angle, or in the region of the pituitary. A very intense headache suggests hydrocephalus from growth obstructing the ventricular system or aqueducts. It is usually continuous, but is often neuralgic in character in cerebello-pontine cases and migrainoid in hypophysis cases. Localised headache is significant if it is associated with a tympanitic note on percussion. The well-known observations of Cushing and Victor Horsley on optic neuritis are quoted. Tumours of the frontal region may produce cramp of particular muscle

groups, and also aphasia or bradyphasia. Occasionally there are affections of smell and a condition like ataxia. The cardinal sign of a tumour in the precentral convolution is monoplegia with Jacksonian epilepsy. The post-central gyrus is principally sensory in function. If the lesion is left-sided apraxia may result. There may be ptosis and mydriasis in tumours of the angular gyrus, and hemianopsia in occipital lesions. A growth of the temporal lobe gives rise to convulsions with some warning in the shape of a sound audible to the patient or to sensory aphasia. According to Knapp, lesions of the right temporal region cause third nerve palsy with ataxia. Pituitary tumours are diagnosed by the dilatation of the sella turcica, as shown by the X rays, acromegaly of Fröhlich's type (adiposity with genital atrophy), interference with the sugar metabolism, and temporal hemianopsia or optic atrophy. Growths of the cerebello-pontine angle cause tinnitus or deafness from involvement of the eighth nerve, which with the aid of Bárány's methods can be diagnosed with confidence. Other symptoms are nystagmus, giddiness, evidence of pressure on the tenth, seventh, or fifth nerves (loss of the corneal reflex being specially suggestive), and cerebellar ataxia with adiadochokinesis. Hemiplegia is unusual. Cerebellar tumours give rise to ataxia, adiadochokinesis (inability to open and shut both hands rapidly), asthenia, atonia, nystagmus, and tremor. The remainder of the number is devoted to reviews of recent advances in mental therapeutics, by Dubois, Binswanger, and others, the subjects being psychotherapy, Freud's psychoanalysis, the treatment of neuroses, and the forensic significance of hysterical psychoses.

The Journal of Physiology. Edited by J. N. LANGLEY, Sc.D., F.R.S. Vol. XLVI., No. 3. Cambridge University Press. Pp. 173–300. Price 8*s.*—Chemistry of the Vitamine-fraction from Yeast and Rice Polishings. Casimir Funk has continued his researches on this subject in relation to beri-beri. He has separated the vitamine-fraction of yeast into three substances: one with the formula $C_{24}H_{19}O_9N_5$, another $C_{29}H_{23}O_9N_5$, and what appears to be nicotinic acid. The first substance mixed with nicotinic acid seems to be necessary for curing pigeons. Up to the present nicotinic acid and one with the formula $C_{26}H_{20}O_9N_4$ have been separated from rice polishings.—The Aberrant Radial Artery and Valsalva's Experiment. J. M. McQueen and W. F. Croll took sphygmographic tracings on a man, aged 53, with cardiac valves intact, who had an aberrant right radial artery, which ran over the dorsal surface of the wrist unaccompanied by venæ comites. They find that the first rise in the sphygmograph curve in Valsalva's experiment is due to increased blood pressure with increase in the calibre of the artery and the second rise is also due to increased blood pressure.—On Functional Analysis by the Action of Electrolytes. G. R. Mines has studied on the frog's heart not only the mechanical expression of its activity but also the electrical phenomena in relation to the chemical environment. There is no inevitable parallelism between electrical and mechanical changes in living tissues, and chemical changes in the environment bring divergencies into prominence. The author gives an elaborate account of the electrogram of the isolated heart obtained by means of the string galvanometer, which enabled him to obtain definite information about the condition of the heart muscle and how cardiac activity is altered in varying concentrations of electrolytes in solutions bathing the heart. Special arrangements were made for perfusion of the heart. Kinematographs and mechanical records of the beating heart were obtained. The author gives an account of the interpretation of the electrocardiogram. Then follows the influence of hydrogen ion concentration, calcium ions. The summary of the author's results will be of interest both to physiologists and pharmacologists.—The Synthetic Action of Enzymes, by W. M. Bayliss, is a continuation of his elaborate researches on this subject and forms his third contribution on the nature of enzyme action. The summary of the results obtained occupies two pages.—On the Influence of Preliminary Heating upon Peptic and Tryptic Proteolysis, by A. H. Bizarro. This is a highly technical inquiry into a question which has only recently begun to attract attention.—The Innervation of the Adrenal Glands, by T. R. Elliott. Recent work has proved that the splanchnic nerves control the excretion of adrenalin from the adrenal glands. The rise of blood pressure caused by their electrical stimulation is due partly to the direct reaction of the vascular muscles and partly to the effect of the ejected adrenalin on the heart and blood-vessels. That the splanchnics contain glandular secretory nerves raises a morphological question as to the termination of these nerves, and the author finds that probably the chromaffine cells are directly innervated from the primary pre-ganglionic nerves without the intervention of a nerve cell.—Ergotine with Special Reference to the Existence of Sympathetic Vaso-dilators, by H. H. Dale. The author finds that ergotoxin does not reverse the motor effects of adrenalin. It may lower tone, and yet replace a motor effect of adrenalin by an inhibitory effect. Stimulation of the splanchic nerves, after an adequate dose of ergotoxin, may cause a fall of blood pressure, though the suprarenal glands are removed.—After-images of Black and White on Coloured Surfaces is the title of a short paper by F. W. Edridge-Green.

The Journal of Laryngology, Rhinology, and Otology.—The June number is largely devoted to a paper by Dr. Logan Turner on Malignant Disease of the Œsophagus, with special reference to Carcinoma of the Upper End. It is a report for the year 1912, from the ear and throat department of the Royal Infirmary, Edinburgh, and is based upon an analysis of 68 cases of tumour. The author comes to the conclusion that carcinoma of the upper end of the œsophagus is more common and that it also invades the hypopharynx more frequently in women than in men, that it occurs at an earlier age, and that the average duration of the disease is longer in women than in men. The average duration of the disease is shorter when the hypopharynx is involved than when it is limited to the upper end of the œsophagus. The disease follows a more protracted course in older than in younger patients. Laryngoscopy is an essential part of the examination in all cases of suspected carcinoma of the œsophagus. Dr. Turner is opposed to the use of œsophageal bougies as a means of diagnosing stricture. A combination of X rays and œsophagoscopy furnishes the most complete information regarding the nature of the disease, its situation, and the length of gullet involved. When an attempt is made to remove by forceps a small portion of the suspected tissue for purposes of microscopic examination the forceps may not penetrate the tissue sufficiently to permit of any ingrowth of epithelium being observed in the portion removed. Therefore when no evidence of carcinoma is found in a piece of the suspected tissue the existence of a simple stricture must not be inferred.

The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. London and Philadelphia: W. B. Saunders Company. April, 1913.—The valuable notes of the teaching of Dr. Murphy, of Chicago, appear regularly every two months, and the quality of their contents is maintained at a high level. In the current number are described some 20 cases of operations, which include duodenal ulcer, traumatic paralysis of the brachial plexus, spina bifida, cerebellar tumour, and ureteral calculus. Illustrations are numerous and clear.

Reports and Analytical Records
FROM
THE LANCET LABORATORY.

KUHN'S STERILE CATGUT.

(B. BRAUN, MELSUNGEN, GERMANY; AND H. R. WITTING, 41, BERNERS-STREET, LONDON, W.)

WE have received a number of packets of Kuhn's sterilised catgut, in regard to which several important claims are made. Packing No. 1 is stated to be gut which has been sterilised in course of manufacture, but which has not had the outside surface sterilised, a process that is left to the surgeon. Packing No. 2 contains gut which is said to have been not only sterilised during the course of manufacture, but also to have been sterilised on the outside surface. We submitted four specimens of the latter catgut to bacteriological examination. Pieces of the catgut cut into short lengths under aseptic precautions were sewn into nutrient broth tubes. Half of these were incubated aerobically and a half anaerobically at 37° C. for six days. No growth whatever appeared in any of the tubes. That this absence of growth was not due to the presence of an antiseptic dissolved out of the gut was proved by inoculating the broth cultures of the gut with (*a*) B. typhosus, (*b*) S. pyogenes aureus, (*c*) B. subtilis, and (*d*) B. mycoides. All these proved to grow vigorously in the broth, showing that no antiseptic was present. The specimen of catgut we examined, therefore, proved to be absolutely sterile. The catgut is contained in several packings individually suitable for particular circumstances. The manufacturers contend that sterilisation can only be satisfactory when it is done during the process of manufacture. The gut of healthy animals is employed and the intestines are sterilised in the slaughter-house itself, and again sterilised by means of iodine before being twisted. We found on digesting the gut with nitric acid that some iodine was liberated. This, of course, is not in a free state, but combined with the tissue which has incidentally the effect of preventing the tearing of the thread in stitching.

HORMOTONE.

(G. W. CARNRICK CO., 35, HIGH-STREET, HORNSEY, LONDON, N., AND NEW YORK.)

The function of hormones as activators of the internal secretions is now well recognised. They are, of course, a class of bodies of the utmost physiological importance, and their introduction into therapeutics will be watched with considerable interest. Hormotone is described as a physiological combination of tonic hormones derived from the thyroid, pituitary, ovary, testis, pancreas, and spleen in approximate physiological proportions. Each tablet contains 1/20th grain each of desiccated thyroid and pituitary. We had no difficulty in recognising iodine as a constituent of the extract. The suggestion is that the administration of this combination should have a favourable effect on metabolism and oxidation, causing an increase in mental, nervous, and muscular activity, the administration being indicated in neurasthenia, premature senility, and sexual neuroses.

VITAFER.

(SOUTHALL BROS. AND BARCLAY, LIMITED, 19–21, LOWER PRIORY, BIRMINGHAM.)

This is a protein glycerophosphate combination and bears decided evidence of care in its manufacture and of a particular regard for the kind of cases it is intended for. It is a tonic food. We find that the protein present is not exclusively casein, for clear evidence was obtained of the presence of an important quantity of milk albumin which has been shown to possess a special dietetic quality. Our analysis of Vitafer gave the following results: moisture, 6·30 per cent.; mineral matter, 10·70 per cent.; total proteins, 80·40 per cent.; and fat, 2·60 per cent. The total phosphoric acid present representing the phosphate of lime and the glycerophosphates of calcium, magnesium, and sodium was 3·84 per cent. This analysis bears out the statements which have been communicated to us by the manufacturers. The addition of the magnesium glycerophosphate is said to obviate the constipating effect of milk protein. The preparation is free from starch and sugar. There can be little doubt as to its value as a restorative and recuperative.

DÜRKHEIMER NATURAL ARSENICAL WATER.

(AGENCY, INGRAM AND ROYLE, BANGOR WHARF, 45, BELVEDERE-ROAD, LONDON, S.E.)

Dürkheim, situated at the entrance of the Isenach valley at an altitude of 380 feet, at the foot of the Hardt mountains, possesses springs known as the Maxquelle natural waters, which show a unique composition. Undoubtedly the most important constituent is arsenic, which is so often associated in other springs with iron, but this is not the case with the Maxquelle. According to our analysis the principal constituents are sodium chloride, calcium chloride, and magnesium chloride, but there are also traces of lithium and strontium salts. The pharmacology of the waters, therefore, is practically summed up in the calcium chloride, sodium chloride, and arsenious acid which it contains. In our experiments the amount of arsenic recovered was equal to that recorded in an official analysis—namely, 17·5 milligrammes per litre. The absence of any important quantity of iron is interesting, as the water may be administered for the sake of its arsenic without the disturbing effect of iron salts. Moreover, the calcium salts are, of course, hæmostatic and the chloride has been used in the treatment of scrofulous enlargement of the glands. Sodium chloride is useful in some forms of catarrh. As to arsenic, we have received copious references to clinical evidence in favour of the use of the waters as a general tonic. It appears to have valuable application particularly in anæmia, leukæmia, and chlorosis, and in conditions generally in which a lowering of the metabolism or vital activity is apparent. Arsenic is said to increase the number and activity of the phagocytes, and indirectly the amount of hæmoglobin, and some authorities have stated that it is more effective when given in the form of natural mineral water. According to our analysis we found sodium chloride 14·00 grammes per litre, calcium chloride 2·88 grammes per litre, magnesium chloride 0·43 gramme per litre, and arsenious acid 17·5 milligrammes per litre. The water is colourless and clear, with distinct saline taste. It is exported to this country in bottles.

(1) HIPPOSARCINE ROY; (2) GLYPHOSPHER; AND (3) CROLAS OIL.

(M. BRÉSILLON AND CO., GAMAGE BUILDINGS, HOLBORN, LONDON, E.C.)

1. Hipposarcine Roy is a novel product inasmuch as it is prepared from the fresh muscle tissue of the horse. The process is carried out in the cold and so the extract contains the expressed uncoagulated albumins. The preparation, in fact, on heating coagulates. According to our analysis the amount of coagulum produced when dried is 1·15 per cent., while the total protein matters according to an estimation of nitrogen amounted to 3·31 per cent. The diluted liquid shows the hæmoglobin absorption spectrum. The only preservatives we found present were cane sugar and glycerin, the former to the extent of 50 per cent. and the latter to 7·70 per cent. The mineral matter, amounting to 0·40 per cent., was of a brown colour due to iron.

On estimation the iron, calculated as ferric oxide, amounted to 0·042 per cent. We found present also creatinine and glycogen so that there is no reason for doubting the *bona fides* of the preparation. It is claimed that the blood of the horse contains more iron in hæmoglobin than does that of the ox, whilst it is also urged that by the use of horseflesh the danger of infection by tuberculosis so prevalent amongst oxen is avoided. Clinical trials are quoted, in which it would appear that this preparation has been given with advantage in conditions of constitutional debility, as in tuberculosis and anæmia. 2. The stated composition of glyphospher was confirmed by our analysis. It is a liquid preparation containing the glycerophosphates of calcium, sodium, manganese, iron, and strychnine. The total solids amounted to 34·01 per cent. and the mineral matter to 2·49 per cent. 3. Crolas oil is the name given to a specially refined castor oil, which is as pure and tasteless as any we have examined. It gave normal physical constants and showed free acidity of only 1·08 in terms of oleic acid.

(1) METAFERRIN PREPARATIONS; AND (2) TRICALCOL.

(THE METAFERRIN COMPANY, ELBERFELD; GERMANY AGENCY, REITMEYER AND CO., 63, CRUTCHED FRIARS, LONDON, E.C.)

1. Metaferrin is an interesting combination of iron and protein and may be given as regards its iron in preference to the inorganic salts. According to our analysis it contains 11 per cent. of iron calculated as metal, 65·10 per cent. of protein, 2·5 per cent. of fat, 23·4 per cent. of mineral matter, and 9·0 per cent. of moisture. Arseno-metaferrin, as the name implies, contains arsenic in addition to iron, a statement we have verified. The product, it is said, is not disintegrated in the stomach but in the intestinal tract, and has been given with advantage over ordinary inorganic arsenical preparations. Again, iodo-metaferrin contains iodine associated with protein and iron. We had no difficulty in setting free the iodine. "Raumauxane" is another metaferrin compound prepared on the same lines but contains soluble albumins. The proteins amounted to 78·50 per cent. according to total nitrogen, the fat to 2·50 per cent., the mineral matter to 12·00 per cent., and the moisture to 7·00 per cent. It contained a notable amount of iron in organic combination. These preparations are of interest in presenting the various drugs indicated in association with organic elements. In this way some of the therapeutic difficulties in employing the elements in the inorganic form are removed. 2. Tricalcol is a combination of milk albumin with tricalcium phosphate, which is, curiously enough, more soluble in alkali than in acid. The phosphate of lime, which amounts to 20 per cent.—a claim which we have confirmed practically—is said to be present in the colloidal form. The phosphate of lime is readily absorbed. The analysis gave protein, 69·00 per cent.; fat, 2·50 per cent.; mineral matter, 18·90 per cent.; and moisture, 9·6 per cent.

IODEX SUPPOSITORIES.

(MENLEY AND JAMES, MENLEY HOUSE, FARRINGDON-ROAD, LONDON, E.C.)

The employment of free iodine in rectal diseases claims attention. In the iodex suppository the iodine is associated with a neutral fatty base which melts at body temperature. That the iodine is present in the free state was shown by the fact that alcohol extracted it, the solution on being allowed to evaporate on starch paper giving the well-known blue reaction. The iodex suppository appears to be very convenient to use, and it is stated that owing to the association of the iodine with a bland fatty basis it possesses no irritating or corrosive action, while it serves as an antiseptic and healing agent. The amount of iodine in each suppository is ⅜ gr. The moulded cone is contained in a soluble gelatin envelope which preserves the iodine strength.

New Inventions.

CELLULOID INHALER.

THE accompanying illustration represents a celluloid inhaler which I have been using for some time. The diaphragm fixed across the middle of the inhaler contains ten cell-like chambers each with an aperture at the side and at the bottom, so arranged that any escape of fluid from the sponge into the lower half of the inhaler is impossible with ordinary care. The inhaler has also a lid perforated to admit a free current of air and to allow the sponge to be placed *in situ*. A fresh supply of the anæsthetic can be readily given by removing the lid. There is also a spout through which additional anæsthetic may be dropped without removing the inhaler from the face. It is essential in all inhalers where a sponge is used that it should be of good absorbent quality.

The inhaler is made in three sizes and may be obtained at any surgical instrument makers.

C. J. OGLE, M.R.C.S. Eng.,
Anæsthetist to the National Dental Hospital and to Guy's Hospital, &c.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ELECTION OF MEMBERS OF COUNCIL.

A MEETING of Fellows was held on July 3rd at the College in Lincoln's Inn Fields to elect four members of Council. The result of the poll was as follows:—

	Votes.	Plumpers.
J. ERNEST LANE	448	 63
H. J. WARING	437	 57
L. A. DUNN	421	 68
JONATHAN HUTCHINSON ...	407	 32
WALTER G. SPENCER	312	 9
H. BETHAM ROBINSON	237	 25

The PRESIDENT declared Mr. Lane, Mr. Waring, Mr. Dunn, and Mr. Hutchinson to be elected. The first two will hold office for the full period of eight years; Mr. Dunn as substitute member for Mr. Bruce Clarke will retire in 1915; and Mr. Hutchinson as substitute member for the late Mr. Clinton Dent will retire in 1919.

There were in all 872 votes recorded, of which 13 were votes given personally, while 859 votes were sent by post; but 7 of these voting papers were invalid, as for one reason or another they did not comply with the regulations

GRANT TO THE WIDOW OF DR. EDWARD ADRIAN WILSON.—On July 7th the Mansion House Committee of the Captain Scott Fund decided to allot £34,000, out of the £75,000 collected, to the widows and relatives of those who lost their lives in Captain Scott's Expedition. These grants are, of course, in addition to the Government provision. The sum allotted to Mrs. Wilson is £8500. For the publication of the scientific results £17,500 is set aside. Staff-Surgeon E. L. Atkinson, R.N., will represent the Scientific Staff of the British Antarctic Expedition on the publication committee of three. The other two members will be selected respectively by the Royal Society and the Royal Geographical Society. £18,000 will be expended on a memorial to Captain Scott and his comrades, and £5100 to settle the deficit on the expedition.

THE LANCET.

LONDON: SATURDAY, JULY 12, 1913.

The British Medical Association and the Organisation of the Medical Profession.

THE Council of the British Medical Association have issued a Supplementary Report dealing with the organisation of the medical profession and such ethical, medico-political, and medico-social questions as are for the moment to the fore. These questions in their gist are the same that have confronted us for many years, but political and social developments bring now one phase and now another into particular prominence, while the circumstances in which the National Insurance Act became law have revealed to the medical profession that its members are open as a whole to having violent changes in professional life thrust on them without consultation. The outstanding feature of the Report is contained in Appendix XIX., which details a scheme drawn up by the State Sickness Insurance Committee of the Association with the view, first, to establish a Fund for the better organisation of the medical profession, and, secondly, to provide for subscribers to that Fund the advantages of medical defence, insurance against accident and sickness, and endowment insurance. The scheme is in the form of a report from the State Sickness Insurance Committee to the Council of the Association, and had its origin in proceedings at the special meeting of the Representative Body held in January last in London, when the Council of the Association were instructed to consider the advisability of giving effect to certain proposals made by the Brighton Division and the Newcastle-on-Tyne Division with regard to a Special Campaign Fund, the campaign in question being an endeavour to organise the profession to meet the growing demands laid upon it by legislation. Among the proposals of the Brighton Division were the following: that a Fund should be raised by a voluntary quarterly levy of £3 per member of the Association per year for the next three years, the subscription for membership of the Association being included in that sum; and that a quarterly levy should be made of one farthing per insured person on the list of each practitioner for the next three years, the money so obtained to be used to provide efficient clerical and professional assistance to the Local Medical Committees and to the Divisions generally. Further, it was suggested that the central office of the Association should be developed so as to allow of a Medical Staff visiting each Division and interviewing each Local Medical Committee once a year; and that disbursements should be made to medical men devoting time to the campaign, or absenting themselves from their districts upon the business of the Association. The Newcastle-on-Tyne Division made different suggestions; but with a similar object in view. They proposed that there should be compulsorily deducted from each quarterly cheque of each practitioner on the panels three farthings for each person on his list, that the sum should be deposited each quarter at compound interest with an insurance company, there to remain, after defraying the expenses of the Local Medical Committees, until April, 1916, when either the accumulated sum could be used as a "war fund," or £200,000 of it could be kept in reserve with this object, and the balance be employed to form the nucleus of a sickness, accident, and pension fund.

The amount raised by such a compulsory levy as the Newcastle-on-Tyne Division desired would have reached the figure estimated. However, the State Sickness Insurance Committee were able at once to rule out the whole scheme, inasmuch as it was based on a compulsory deduction from the payments due to the medical practitioners on the panels, and it would not be possible to make these deductions compulsory. But although the State Sickness Insurance Committee declined the Newcastle-on-Tyne scheme, and only partially adopted that of the Brighton Division, the result of considering the two schemes is that the Committee has definitely reported to the Council of the Association that, properly to organise the profession for defence against the aggressions of lay bodies or of the State, and adequately to protect the interests of medical practitioners, a far larger annual sum of money must be found by the profession than has been provided in the past. The Committee point out that the interests of public health as well as those of medical practitioners are at stake, and they consider that to meet the requirements of the situation one strong central body with ample financial resources and actively supported by a high proportion of the medical profession is essential. Upon these definite conclusions, come to after a careful consideration of the question of the powers of the British Medical Association as at present constituted, there follows a recommendation that a Fund should be formed for the organisation and protection of the medical profession, having for its objects the provision of legal and clerical assistance to, and payment towards the administration expenses of, Local Medical Committees; the provision of the services of the British Medical Association in protecting medical practitioners under the working of the National Insurance Act; the provision of a medical staff to visit every Division of the Association in the United Kingdom and to interview Local Medical Committees at regular intervals; and the payment on scale of members of the medical profession who leave their practices to attend to the administrative business of the Association in various ways. The subscription in respect of the organisation benefits of the Fund, it is suggested, shall be £5 per annum, payable yearly, half yearly, or quarterly; the control and administration of the Fund is to be vested in the Council of the Association, who, acting as trustees, will see that the expenses are borne by the Fund, and that the advantages provided to subscribers to the Fund will be medical defence, and sickness, accident, and endowment assurance, with an optional scheme for pensions. With regard to medical defence, the State Sickness Insurance Committee

recommend that out of the one inclusive payment of £5 the subscription of members should be paid to any of the three successful medical defence associations now in existence.

This is, of course, a most far-reaching and drastic policy, designed to meet not only existing evils but also those which may arise. Whether the Council of the Association, who will presumably adopt the report of the State Sickness Insurance Committee and submit it for the approval of the Association quite shortly, find their views endorsed or not, the boldness and frankness of the conception will meet with general recognition. To come down to bedrock, the British Medical Association, as the one body of the medical profession large enough to perform the feat, proposes to absorb or take over the various schemes of the profession for mutual defence and betterment, and then organise a comprehensive plan of resistance to public aggression. At once several questions arise. First, do the evils that are admittedly existent demand such measures? secondly, is it believed that the evils will get so grave that a plan—by some openly termed the creation of "a war fund"—will soon be required? thirdly, can the British Medical Association carry out with success the enormous programme? and fourthly, if it were carried out successfully, would the medical profession be better enabled to stand up against deliberate political aggression, granting that the tendency of legislation will be towards the further exploitation of our calling? These questions cannot, of course, be answered with certainty by anyone, but they are matters for the Divisions of the Association most carefully to consider. Our own opinion is that the British Medical Association is needlessly apprehensive, but the policy of organised defence is the right one and the only one for those who feel so gravely doubtful of the future. The scheme as propounded might, we think, succeed, but its effectiveness will depend upon an enormous amount of individual capacity for business among men not trained for business and having their best faculties and industries already engaged in the exhausting task of maintaining the health of the country, healing the sick, and safeguarding the sound. And not only will success depend upon this, but also upon the smooth execution in a central bureau of elaborate tactics, whereby all these individual capacities can be used to the best advantage. The central bureau will have to be alike firm and flexible. Let us look at one only of its duties, the interviewing of Local Medical Committees through the intervention of a paid medical staff. Here, for example, the Fund must, as a medical organisation, support and assist the Local Medical Committees where any question of the infringement of professional rights arises, but at the same time it will have to remember that the Insurance Committees, in whom the actual working of the Act is vested, are public bodies, constituted under an Act of Parliament with statutory duties to discharge for the good of all. How difficult and how delicate will be the negotiations which are now to some extent left to the persons actually concerned, and which it is proposed to take over by a central organisation! The risk to the medical profession of finding their professional liberty attacked by the State may be lessened by the protection of the central organisation, but only if the central organisation takes a broad-minded view of its duties and responsibilities. If the central organisation is betrayed into partisanship, if it fails to recognise conflicting opinions among its adherents, or the public side of professional questions, it may actually precipitate the struggle which it has been created to avoid. Lastly, it must be remembered that mobilisation of forces and concentration of energies lead to rapid defeat, if defeat is to come, for the opposing force will be enabled if victorious to make the victory crushing. We admire the courage of the State Sickness Insurance Committee, but we hope that the future of the profession will be discussed in the light of present and past events in as comprehensive a manner as possible before the scheme is actually launched.

Some of the Problems of Midwifery.

WE are so accustomed to regard midwifery as one of the more scientific portions of medicine that we are apt to forget the numerous blanks that exist in our knowledge, accounting for many of the problems which confront the practitioner who has charge of a pregnant woman. It is, of course, true as regards what may be termed the practical side of midwifery that there is probably more unanimity as regards treatment, and the correct course to pursue in the difficulties which occur, than in almost any other branch of medicine. The art of practical obstetrics has made immense strides of late years, and when practised in a well-conducted lying-in hospital may be said to be as a general rule correct so far as the solution of the practical problems involved is concerned, while the results are more perfect than those obtained in almost any other branch of medicine. It may be inquired, if this is true, why is there still so heavy a mortality from pregnancy, parturition, and the puerperium, and what accounts for the fact that some 3000 women or more die from the diseases and accidents of childbirth every year in England and Wales? The answer to such questions is, however, a very obvious one: this death-rate would to a very large extent disappear if every lying-in woman were compelled to enter a lying-in hospital for her confinement, and if every such patient were compelled to place herself during the course of her pregnancy under the care of an expert. The great bulk of these deaths, due as they are to septic infection, is entirely preventable, and many of the accidents could be avoided or the fatal ending prevented if the patients were confined in such surroundings as obtain in a good lying-in hospital. But such an ideal condition of things is, of course, unobtainable, and, indeed, even if it were a certain number of the complications of pregnancy would still remain the exact nature of which we are entirely ignorant of, and which we are therefore not in a position either to prevent with certainty or to treat successfully when they do occur. Our ignorance, for example, of the so-called toxæmias of pregnancy is most profound; indeed, the very name we apply to these conditions rests upon theories for which there is the very minimum of scientific foundation. We are accustomed to talk glibly of the toxins which produce eclampsia,

or hyperemesis gravidarum or acute yellow atrophy of the liver, but of the character of these so-called toxins we are quite ignorant, and, indeed, future researches may show that our conceptions of them, as probably due to the presence of certain poisons in the mother's tissues and circulation, may be quite erroneous. If they do exist, in all probability their chemical nature is very complex and quite beyond the recognition of the ordinary practitioner or of the so-called obstetric expert. It is, indeed, not unlikely that much of our present crude conceptions of these diseases will have to be swept away before we are upon certain ground, and in the process our accepted methods of treatment may undergo radical changes.

At the present time chemical pathology bulks very largely as an adjunct to pathology, and, indeed, this branch of research is likely to become of even greater importance in the future. The qualifications necessary for such investigation, involving, as it does, the interactions of very complex chemical bodies, call for quite special training, and many of the results which are published in the scientific journals of the present time, obtained as they have been by workers some of whom have not the necessary expert chemical knowledge, must be regarded as of little value. The solution of a number of these problems would seem to lie rather in the chemical laboratory than in the ward, and it is to be hoped that such an extensive field of research will in the immediate future attract workers with the scientific knowledge necessary to enable them to solve successfully the abstruse chemical problems involved. It is not work which can be undertaken successfully by the ordinary pathologist, or indeed by anyone but a trained chemist, and unfortunately the supply of such workers is very limited, and therefore, although we cannot but admire the industry which is displayed in the endeavour to solve these problems by many workers in many laboratories, we must examine their credentials with considerable care before accepting their conclusions as correct, or, indeed, of any scientific importance. There are so few critics who can judge of the value of the published results, and there is a tendency to accept conclusions without sufficiently weighing their merits or the likelihood of their standing the tests exacted by those qualified to form trustworthy opinions. As every student knows, the theories as to the causation of eclampsia are extremely numerous. Many of them are founded upon inadequate premisses based only too often upon a few uncontrolled experiments or imperfectly observed cases, with the result that at the present time the medical profession is as ignorant of the real cause of eclampsia as it was ten years ago. We do not wish to be understood as meaning that none of these so-called theories are of any value; far from it. No doubt many of them are to some extent true, and will find their place in the complete edifice of work which we may hope some day will be carried to a successful conclusion. In his valedictory address (see p. 63) as President of the Section of Obstetrics and Gynæcology of the Royal Society of Medicine Dr. AMAND ROUTH calls attention to the importance of the so-called toxæmias of pregnancy and of eugenics from the obstetric standpoint. He points out how our knowledge of the action of the secretions of the ductless glands is gradually increasing, although there are still many lacunæ, and directs attention to the intimate relations which obtain between the different ductless glands of the body. His words suggest directions in which valuable work remains to be done.

But if the pathologist, whether working at chemical pathology or otherwise, is to obtain adequate assistance from the clinician it is essential that every lying-in hospital should be provided with beds for prematernity cases—beds in which women can be kept under observation during the latter weeks or months of their pregnancies. The present system, by which a patient is only admitted into a lying-in hospital after the onset of her labour, is essentially a bad one, and it is to be hoped that before long all maternity hospitals will be provided with an adequate number of prematernity beds. In all probability a great deal of information is to be obtained from the scientific investigation of patients in, for example, the pre-eclamptic stage or in the early stages of acute yellow atrophy, to take only two of the important complications of pregnancy and parturition. But if such investigations are to be carried on with any success they must be conducted under the direction of a trained scientific observer who has at his disposal the necessary laboratories and the necessary skilled assistants to carry on the special work of such laboratories. At the present time, so far as we are aware, there is not a single lying-in hospital in this city with any such equipment. For this, among many other reasons, it is to be hoped that the recommendations of the Royal Commission on University Teaching in London will not be allowed to come to nothing and that some attempt will be made to put the teaching of obstetrics and the investigation of the many problems associated with this most important branch of medicine upon what may be termed a university standard. At the present time the London school of obstetric medicine is not producing the amount of scientific work which we have a right to expect; the number of workers in this branch of medicine in the metropolis is very small if we are to judge by the extent of the output. No doubt the workers are there, but they lack the necessary direction and the facilities for producing good results, and this is but another instance of the fact, well brought out in the report of the same Royal Commission, that all is not well with scientific medicine in the medical schools of London. Good work is no doubt being done by individuals, but the organisation of research in all three branches—medicine, surgery, and midwifery—is undoubtedly most imperfect. Much also remains which can be done for the woman who expects to become a mother. The provision of more lying-in hospitals, of prematernity wards and of skilled medical aid for the poor in case of need, the more perfect supervision and better training of the midwife, the correction of the present cruel custom of providing the workhouse labour ward as the only refuge for the unmarried girl with her first baby, and the notification of stillbirths—all these it is the duty of medical men to do their utmost to promote. By such means alone, as Dr. ROUTH points out, the present appalling death-rate among newly born children could be largely diminished, and not only hundreds of children, but also hundreds of mothers' lives, could be saved to the nation every year.

Voluntary Hospitals and Sir William Osler's Criticism.

Sir WILLIAM OSLER, in his presidential address delivered at the annual conference of the British Hospitals Association at Oxford, laid before his hearers in lucid and forcible language four topics connected with hospital organisation and management, which, in his deliberate opinion, required immediate attention. Each of these topics, upon which the Regius Professor of Medicine at Oxford has formed his own views in the light of a long and varied experience of our own and of colonial and foreign hospitals, should be considered by members of the medical profession with attention. They need not necessarily acquiesce in Sir WILLIAM OSLER'S views—there are merits or drawbacks apparent upon the face of the individual suggestions—but the matters require earnest consideration. It will be found when ultimate results are considered that each of the four recommendations of Sir WILLIAM OSLER, if carried out, may affect to some extent the "voluntary hospital system" as now established in this country, and that to accept the four propositions as they stand might imply the initiation of a completely new hospital system. On the other hand, it is arguable that Sir WILLIAM OSLER'S suggestions, as well as others which are being made and likely to be made, might be adopted and carried out to the improvement of the usefulness of our hospitals and of their financial stability without any destruction of their voluntary character, and without the introduction of State or municipal control to any extent likely to prejudice their efficiency as institutions for the healing of the sick poor.

The first of Sir WILLIAM OSLER'S recommendations related to that part of our voluntary hospital system which consists of giving all the benefits that any hospital can bestow, and which any patient's state demands, to that patient without charge and as an act of charity. He may be accepted or refused for treatment, but his treatment, when he is once in the hospital, is free, whether his income is more or less than his neighbour's in the next bed. On the other hand, the fact that he may be rejected as not being poor enough to receive charity may lead to concealment of means by one who is thus tempted to commit fraud; and again, a man may be rejected as too rich from the hospital's point of view, although the obtaining of anything approaching the benefits of hospital treatment is, owing to his financial position, impossible to him. Sir WILLIAM OSLER, with regard to this system of pure charity, says tersely, "Give it up." In further explanation he calls attention to the hospitals of Canada and the United States where payment according to means, where means exist, is part of a system found to work well in practice. Sir WILLIAM OSLER, declares emphatically that from a financial point of view the system pays, the importance of which is clear if we wish to see our hospitals maintain independence of official control administered by a State department or a local authority. Those who consider that the National Insurance Act should have provided definitely for the admission of insured patients to hospitals, subject to payment from funds provided under the Act, cannot assert that as a matter of principle no voluntary hospital should receive money in respect of services rendered. Sir WILLIAM OSLER'S second point referred to the equipment of hospitals which, he urged, should in all cases be fully provided with laboratories for chemical, bacteriological, and pathological research. He alluded in particular to provincial hospitals from which, in the absence of such laboratories, material for investigation has to be sent to London or to some other large centre. As to the broad bearing of this advice none will probably be inclined to contradict Sir WILLIAM OSLER. As to its effect upon the voluntary hospital system, we need only refer to the financial difficulty which must always occur when more or less expensive structural improvements and apparatus are demanded by the developments of modern science; and point out that the construction and maintenance of research laboratories are very fitting undertakings for municipal authorities or the State to assist in, but that the question of the extent to which, in exchange for such assistance, the municipality or the State should be allowed to take part in hospital management is a question for serious consideration. The third point was put forward as a somewhat delicate one affecting the medical profession. He suggested that in view of the rapid development of modern medicine there should be in every county in connexion with every county hospital a paid medical officer, a pure physician, receiving a fixed stipend and devoting his time, or the greater part of it, to medical investigation combined with the care of the patients in the hospital. The adoption of this recommendation would apparently imply the exclusion of those medical men from the wards of a county hospital who now give their services gratuitously, accepting in return the advantages to themselves which hospital practice confers upon medical practitioners undertaking it. The effect of such a proposal upon the existence of any hospital as a voluntary institution must depend to some extent upon its financial position at the time when it decides upon any such innovation. If money has to be found in order that the patients of any hospital may receive better treatment, the questions of where it is to come from and upon what conditions it will be given must at once arise. Sir WILLIAM OSLER'S fourth recommendation, that county hospitals should be used for purposes of instruction, and particularly of post-graduate instruction, is interesting and important in itself. It also has an indirect bearing upon the question of the maintenance of voluntary hospitals, in that such a system would seem to be more likely to flourish and maintain its efficiency in voluntary hospitals through the goodwill and coöperation of the medical men of a county working for a common cause, than in rate or State-aided institutions conducted by persons not immediately interested in medical progress.

Sir WILLIAM OSLER did not directly concern himself with the question of the source of the hospital's funds except in so far as he urged that all patients able to do so should pay according to their means, a principle accepted to a limited extent by those who desire to see insured patients accommodated and payment made on their behalf from insurance funds. At present the difficulty of discussing the question of how far hospitals should cease to be "voluntary" (in the sense of how far they should

cease to be supported entirely by charity) is increased by our not knowing as yet to what extent they will be affected by the National Insurance Act, and whether the making up from voluntary sources of any financial deficiency that may arise is going to be practically possible. Meanwhile the Council of the British Medical Association has reported upon the question of the advisability of the medical staff of a hospital being paid for its services, to the effect that such an innovation would be undesirable on the ground that it would tend to undermine our "peculiarly British" voluntary system; and we may take it that the general body of the medical profession regards with distrust any possibility of State-supported and locally directed institutions supplanting voluntary hospitals, with the possible subsequent development of a State medical service. The views of Sir HENRY BURDETT will naturally be studied in this connexion. We gather, not only from what he said recently at Oxford, but also from his speech at the annual meeting of the Home Hospitals Association in last March and from other utterances of his opinion, that he regards State financial assistance to the hospitals, in view of the calls made upon the latter under modern conditions, as a matter of justice, and its acceptance as a matter of necessity. We also gather, however, that he does not regard the giving and accepting of such assistance as likely to be fatal to the voluntary element in our hospital system, either immediately or in the future. In short, he advises the voluntary hospitals that they should be able to obtain Government aid in return for work done for Government patients, and retain, as all should desire them to do, the dignity of their present position and the efficiency which has won them the confidence and gratitude of the country. This is comforting but not quite convincing.

Annotations.

"Ne quid nimis."

ROGER BACON.

As a nation we are singularly slow in commemorating our scientific heroes by any public memorial. For one statue or building or institution in honour of science or of a man of science there are 20 in memory of a naval or military leader. This comparative neglect of science may be justified in some minds by the fact that the labours of the scientific worker touch us at nearly every point of our daily life, while those of the navy and the army, though by their labours the works of science are rendered possible, may be forgotten when once the actual battle is over. Although, to use the words of the Prayer Book, the navy is "a security for such as pass upon the seas upon their lawful occasions; that the inhabitants of our island may in peace and quietness serve Thee our God; and that we may return in safety to enjoy the blessings of the land with the fruits of our labours," yet when the military or naval exploit has been long performed its protagonist may be forgotten unless a concrete memorial is raised to him. The services of science being more obvious from day to day are supposed not to drop out of mind so quickly. This may be the reasoning which leads to public monuments to the sailor and soldier in greater profuseness than to the man of science, but it seems to us that its outcome is carried too far. Nearly 700 years ago there was born, probably at Ilchester, one of the greatest of our scientific heroes, by name Roger Bacon, and a proposal is on foot to commemorate the seventh centenary of his birth next year (1914) by erecting a statue in his honour in the Natural History Museum at Oxford, and by raising a fund for the publication of his works. To the average inhabitant of these islands Bacon is little more than the name of a man who made a brazen head which talked, and invented gunpowder or something of the sort; few know that Bacon was a man of encyclopædic knowledge and held a very high estimate of experimental science, concerning which he says in the Opus Tertium that it "neglects arguments, since they do not make certain, however strong they may be, unless at the same time there is present the *experientia* of the conclusion. For experimental science teaches *experiri*, that is, to test by observation or experiment the lofty conclusions of all sciences." A strong committee has been formed to further the memorial, the chairman being Sir Archibald Geikie, President of the Royal Society. Subscriptions may be sent to the secretary, Lieutenant-Colonel H. W. Hime, 20, Park-road West, Kew. Subscribers of 1 guinea will be entitled to an invitation to the Roger Bacon Commemoration at Oxford in July, 1914, and to receive a copy of a memorial volume of essays dealing with Bacon's life and works which it is proposed to publish.

THE GERMAN EMPEROR AND THE MEDICAL PROFESSION.

FROM his position at the head of a great military nation the German Emperor is not likely to applaud the passage in the *Iliad* where it is declared that a wise physician "is more than armies to the public weal." For him, on the contrary, the German army and navy are of paramount importance, but he has nevertheless during his reign of 25 years taken many opportunities of showing that he holds medical science in high esteem, and various incidents of this kind are recorded in a recent number of the *Deutsche Medizinische Wochenschrift*. His active interest in the efficiency of the army medical department and in the restoration of military invalids to health, whenever possible, has several times been a feature of addresses delivered by him at the laying of foundation-stones, the opening of military sanatoriums, and other ceremonies of a like kind. Some useful innovations, such as the appointment of nursing sisters to army hospitals, are said to have been introduced in a great measure through his influence. His interest in medical questions has frequently led him to take counsel with eminent members of the profession, and in return there have been instances in which he gave valuable assistance to schemes approved by them. The Emperor is an advocate of post-graduate study for medical men; in the year 1906, at the opening of the Empress Frederick House in Berlin, he delivered a characteristic speech, and ever since that time arrangements made for this purpose have always been sure of his support; he returned to the subject on another occasion when he visited the Virchow Hospital and expressed the hope that it should as far as possible be made available for post-graduate instruction. He took a deep interest in the discoveries of Professor Robert Koch, giving him whatever assistance was possible, and attending his lecture on sleeping sickness shortly before the second sleeping sickness expedition left Germany. A tangible proof of the Emperor's cordial sentiments towards Professor Koch was afforded by his contribution of £5000 to the Robert Koch Memorial. Professor von Bergmann, Professor Ehrlich, and Professor Behring have also received from the Emperor various honourable tokens of esteem. Among the numerous questions of public health on which the Emperor has bestowed attention the prevention of

accidents to workmen holds a prominent place. During the year 1889 at Berlin, in a speech at the opening of the general German exhibition for the prevention of accidents, he displayed considerable familiarity with the subject, and in 1890, at the annual meeting of the Prussian Agricultural College, he advised that special directions for avoiding accidents in agricultural work should be formulated. In the speech from the throne in May, 1890, he discussed the general problems of the prevention of injuries to workmen and a scheme for the protection of children was drawn up, this being a subject in which the Emperor takes great interest. In many other departments of medical work he has exerted a salutary influence, as, for instance, in securing independence for the laryngological and otological clinics in Berlin. This being the jubilee year of his reign, on the day selected for its formal celebration committees and local authorities in a great many places announced that large sums had been raised locally for founding philanthropic institutions of various kinds.

SPASTIC PARALYTIC ILEUS.

IN the *Boston Medical and Surgical Journal* of April 17th Dr. R. M. Green, Dr. F. S. Kellogg, and Dr. P. L. Hardie have recorded two cases of a very rare form of intestinal obstruction—spastic paralytic ileus. In the first case a married woman, aged 22, was admitted to the Boston City Hospital on Oct. 23rd, 1911. In June, 1909, she had a normal labour. In February, 1911, she suffered from frequent micturition and leucorrhœa. Examination showed a retroverted uterus embedded in a mass of dense exudate filling the entire pelvis. There was profuse leucorrhœa. Bilateral salpingitis, probably gonorrhœal, was diagnosed, though the gonococcus could not be found in the discharge. Under rest in bed, hot vaginal douches, and glycerine tampons the exudate rapidly diminished and she was discharged on Nov. 10th much relieved. On Dec. 27th she was readmitted with a history of recurrent pain in the right side, chills, and fever. Examination showed a condition similar to that present before. The abdomen was opened. The vermiform appendix was found elongated, congested, kinked, and adherent behind the cæcum. It contained a fæcal concretion. To bring it into view considerable traction was put on the ileum, which was grasped for this purpose at a point about 4 inches from the ileo-cæcal valve. The appendix was removed. Both Fallopian tubes were enlarged, kinked, and adherent to the posterior cul-de-sac The left tube was removed, and some purulent material escaped from it. The right tube was resected, leaving the proximal half. Both ovaries were normal and were left. A drain was placed in each lateral cul-de-sac. Ventral suspension of the uterus was performed, and the abdominal wound was closed except at the exit of the drains. Twelve hours after the operation the abdomen became distended, especially above the umbilicus. There was considerable belching. Enemata were given with only a fair result. Vomiting of brownish fluid set in, and acute post-operative dilatation of the stomach was diagnosed. A stomach tube was passed, and some gas and about 4 ounces of greenish fluid escaped. Further enemata gave unsatisfactory results, and the distension increased. The pulse failed, and death took place 81 hours after the operation. A necropsy was refused, but exploration through the operation wound showed the following conditions. At the site of the drainage tubes was a small amount of clotted blood. There was no fluid or pus in the abdominal cavity, and no evidence of peritonitis. The stomach was greatly distended, and was felt one inch above the umbilicus. The small intestine was distended as far as it could be seen or felt. Four inches from the cæcum the ileum for a distance of 2 inches was thickened, dull, slightly reddened, contracted, and its internal walls were in apposition. There was no gross injury to the mesentery at this point. Between the contracted portion and the cæcum was normal, undistended ileum. The cæcum and colon were not distended. Evidently the patient died from intestinal obstruction due to constriction of the ileum at the point where it had been grasped. This must have been due to surgical trauma of the muscle and sympathetic nerve plexuses. In the second case a nulliparous widow, aged 31, was admitted on January, 1913, with a retroverted adherent uterus. In the right fornix a hard and non-sensitive mass of the size of a hen's egg was felt. Laparotomy had been performed six or seven years before for "inflammation of the left tube and ovary." Chronic right salpingitis was diagnosed. Laparotomy was performed beside the old scar. The small intestine was adherent along the entire line of the incision, and was separated with great difficulty, the intestine being submitted to considerable traction and manipulation. The whole pelvis was roofed over with dense adhesions, involving the sigmoid. They were separated with difficulty. The posterior surface of the uterus was firmly adherent to the floor of the pelvis, but was gradually freed and raised. The appendix and left uterine appendages were absent. The right ovary was cystic and was removed. The fundus of the uterus was firmly fixed to the anterior abdominal wall, and the abdomen was closed. The patient's condition remained good till next morning, when she vomited and the abdomen became rapidly distended. The bowels could not be moved, and in spite of treatment she grew rapidly worse and died 26 hours after the operation. A necropsy was refused, but an examination through the operation wound showed a condition similar to that present in the first case. The stomach and upper portion of the small intestine were greatly distended. At the point where the intestine had been separated along the line of incision was a spastic, annular contraction for a distance of about an inch and a half. Distal to this point the small intestine and colon were collapsed. There was no evidence of peritonitis. The cause of death in these two cases was intestinal obstruction from a localised tonic contraction of the circular fibres of the small intestine. This has been described by Kelly and Noble as "dynamic ileus." They state that it constitutes 2 per cent. of all cases of intestinal obstruction. It is probably due to injury of the plexuses of Auerbach and Meissner. The moral of these two cases is in the importance of avoiding pinching of the bowel during laparotomy, which might easily have been done in the first case. The small intestine seems to be much more liable to this form of spasm than the large. Hence in appendicectomy traction should never be made on the ileum for the purpose of bringing the cæcum into the wound, but on the large intestine.

MEDICINE IN ABYSSINIA.

ABYSSINIA, owing to its geographical position, that of an isolated plateau, is a curious and interesting study for ethnologists, anthropologists, and students of many other branches of knowledge. In the fourth century A.D. there was an Abyssinian Empire the dominions of which included the Red Sea, together with Yemen and Saba in Arabia. In the same century Christianity was introduced from Egypt, and has survived until to-day, if in a much debased form. In many ways the manners and customs of the country are still mediæval, the typical instance being that medicine is still in the hands of the church, of various quacks, and of sorcerers. But Abyssinian medicine is most interesting as a survival of practices which were universal in Europe six, five, and four hundred years ago, and even at times nearer to us, as the pages of a vividly written

work on the subject by Dr. Merab show.[1] Dr. Merab is physician to the Negus, Menelik II., and in charge of the royal dispensary at the palace, so that he has opportunities for study of which he has made good use. The remedies are purely mediæval. Bleeding, the actual cautery, free purgation, the juices and seeds of various plants, and sundry portions of animals are employed. One of the commoner diseases is due to the presence of tænia saginata. The popular name of this worm, and also of the drug taken to expel it, is kousso, which is also found in our own pharmacopœia as a vermifuge. According to Dr. Merab its use (and the Abyssinians take it regularly every two months) can produce most disastrous effects in the way of fatal syncope or acute gastritis, but he adds that if the natives would take the drug according to the rules of art most of these inconveniences would not arise. Syphilis is common, but of a very mild type, for its nervous complications are almost unknown. Pneumonia is extremely rife, and is treated by wet cupping. "Under this treatment," says Dr. Merab, "adults recover; old people die. As for children, they are never treated at all, and so they always get well." Chronic conjunctivitis is also widely spread; the native remedy is to incise the arch of the eyebrow and to introduce "the seven colours," or rather shades of colour, for the Abyssinians do not recognise violet, indigo, or orange. Tuberculosis, cancer, and alcoholism are practically negligible in their rarity. Despite their very rudimentary notions of medicine and hygiene, and their many unpleasant customs, Dr. Merab apparently acquired a warm admiration for the Abyssinians, whom he calls "a happy people." Crime is largely absent, and also the psychoses which afflict higher civilisations.

JUNE AT HOME AND ABROAD.

JUNE was, in many respects, an average month for the time of year. In the metropolis and several other parts of the kingdom its mean temperature was almost identical with the normal, and its total number of hours of sunshine diverged little from it. The rainfall, however, was short of the average in nearly all parts of the country, the deficiency in London and a large portion of England besides being unusually striking. There was only one really hot period, that between the 15th and 18th, when the thermometer mounted to about 80° in the shade over a considerable part of England, and at some places in the south-east and south went some degrees above 80°. In the metropolitan area, at Kew Observatory, the highest temperature was 84° on the 16th, but in the more central districts and at Greenwich the heat was a few degrees greater. The following day the maximum was 81°, and during the whole month the thermometer touched or rose above 70° on 11 days. The mean maximum, 68½°, was about a degree higher than the normal. The mean of the minimum readings, 50·7°, agreed exactly with the June average, the coldest night, with a minimum of 43°, occurring on the first of the month. At both Bath and Nottingham the mean maximum temperature was just a degree lower than at Kew, while the Bath mean minimum was 49°, and that at Nottingham 48°. Farther north the days and also the nights were colder. At Harrogate the mean maximum was 63½° and the mean minimum 47⅓°, while at Buxton the corresponding figures were 61½° and 46°. On the coast of Lancashire, at Blackpool, the figures were 62⅔° and 50°. The coast of Sussex, as represented by Brighton, had a mean maximum no higher than 63°, but the nights were warmer than in London, the mean minimum temperature being as high as 53°. Bournemouth was both warmer and colder than Brighton, its mean maximum temperature being 65⅓°, and its mean minimum 50·4°, a trifle lower than at Kew. Although there were very few days with an entirely overcast sky in any part of the kingdom, there were relatively few without more or less cloud, and daily sunshine records of 13 hours were seldom experienced. At Kew, where the record on the 14th was as high as 14½ hours, the total number for the month was 201 hours, or five in excess of the average. The same total figure was recorded at Newquay, in spite of the fact that sea fogs and mists spoilt the record on as many as seven days. Torquay escaped the fog, and scored 213 hours of sunshine. Along the south coast the figure was generally higher than in London, while at Jersey, where the weather of the preceding few months gave such a niggardly amount of sunshine, the aggregate was as high as 231 hours. This is, however, below the June normal, which is as high as 246 hours. Over the midland counties the general figure was about 200 hours for the month. London was one of the driest places of the whole kingdom, rain only falling at Kew on six days, and yielding the small total of 0·46 inch. Brighton and Bournemouth had eight or nine days with a measurable quantity of rain, the total of the former resort being 0·64 inch and at the latter 0·95 inch. Bath had only six days, with a total of 0·66 inch, and Nottingham 11 days, giving only 0·55 inch. The south-west and also the north had more frequent rain. At Torquay there were 11 days with rain, but the total fall was only 0·51 inch. At Newquay and Blackpool the rainy days were 15 and 14 respectively, and the total fall about 1·4 inches, while at Harrogate the figures were 18 days and 1·45 inches and at Buxton 21 days and 3·43 inches. At Harrogate the fall was nearly an inch above the average, but that at Buxton was just equal to it. Dry weather was the rule on the continent. Paris had rain on only eight days, yielding a total of 0·8 inch, and at Berlin, where rain fell on seven days, the total was 0·7 inch. Belgium, however, was less dry, rain falling on 13 days, and giving a total of 2·9 inches. Considered generally, Paris was not so bright as London, the observatory at Parc St. Maur recording only 189 hours of sunshine against 201 hours at Kew. The temperature was, however, higher during the daytime, the mean maximum being 70°. The hottest weather occurred about the same time on the continent as in this country, and for a few days the thermometer exceeded 80°, its absolute maximum reaching 86°. At Berlin, where the mean maximum was a little above 70°, the temperature was very high for a time early in the month, rising to about 80° during the day and falling no lower than about 65° at night. Taking the month as a whole, Berlin was warmer than Paris both by day and night. Its mean minimum, 53·7°, was nearly 3° higher than that at Paris and a little higher than in any part of this country. Brussels had the same mean maximum as Bath, but its mean minimum was 2° higher. Throughout Italy the weather was only occasionally rainy, while it was seldom that the thermometer did not rise to above 75°. Maxima above 80° were very common, and at Florence the figure was sometimes as high as 90°.

MODERN THOROUGHFARES AND DISEASE.

IN addressing the Third International Road Congress at the end of last month Mr. John Burns made a bold claim for modern thoroughfares. After stating that in Battersea roads which in 1905 cost over £22,000 to sweep and cleanse cost only £16,000 in 1912, and that the refuse which had to be carted away had diminished in the same period by half, the President of the Local Government Board attributed a wonderful diminution in infant mortality and infant diseases to the introduction of the impermeable road and the tar-paved street. The disappearance of horse traction and the incoming of the motor vehicle and of tar pavement in the side streets had, he believed, also made a tremendous

[1] Médecine et Médecins en Ethiopie, par le Dr. Merab, Médecin particulier du Négus. Paris, Vigot Frères. 1912. Pp. 218. Price 4 francs.

difference in the minor ailments and the general health of the whole community. We have not met with any complete study of this question in recent public health reports, and it is possible that in giving these views Mr. Burns was speaking of what may reasonably be assumed to have taken place rather than of proved fact. The assumption, however, can be supported by an abundance of *a priori* argument. As regards infantile disease, the road with uneven surface, badly drained and paved, the dust of which is loaded with horse droppings and receives house sweeping and other contaminations, must be a fruitful source of infection, either directly to children playing on the pavements or indirectly by being carried into the houses, where it infects milk and other food materials. This has been illustrated by the experience of many towns, where the efforts made in recent years to seal the surfaces of back-yards and abolish the open ashpit have been followed by a striking reduction in the mortality from epidemic diarrhœa of infants. The spread of this disease by means of house flies has also to be remembered, since the diminution in the number of horses kept in mews and back streets in London and other cities entails a reduction in the breeding grounds of these insects. As to road dust in general, it is claimed that in remedying the dust nuisance created by motor traffic our urban authorities have succeeded in reducing it below its original level, and though notable exceptions must be in the experience of everyone the great progress which has been achieved generally is beyond question. All will share Mr. Burns's hope that this improvement is leading to the reduction of catarrhal and other ailments which are classed as "minor," and when consideration is given to the numerous ways in which dirt may indirectly contribute to ill-health, the hygienist can endorse and actively support the endeavour of the President of the Local Government Board to speed up the action of local authorities in improving the surface of roads in all possible ways.

THE FUMES OF THE MATCH.

THE consumption of matches has now reached amazing proportions, which may be attributed largely to the smoking habit. A few years ago something like 18 million gross of boxes were consumed per annum, 63 per cent. of which were the "strike-anywhere" match and 37 per cent. the safety match. About 12 years ago the percentage of safety matches consumed was only 18 per cent., the consumption of the "strike-anywhere" match being 82 per cent. More recently the safety match is being shown to overtake the "strike-anywhere" match with advantages, we think, to the public. The modern match is a great advance on the match of a decade or so ago. Yellow phosphorus has been banished from its composition—a fact which has conferred benefits not only on the operatives engaged in the manufacture of matches but on the consumer also. The combustion of phosphorus in the air of course adds to it an undesirable constituent. The modern "strike-anywhere" match contains phosphorus in the form of a sesquisulphide, which does no harm to the factory hand but which, all the same, gives off irritating and poisonous fumes when struck—namely, the oxides of phosphorus and sulphur. The safety match frequently gives off sulphur dioxide in irritating quantity, but no phosphorus. The phosphorus in this case is on the rubber on the box in the shape of red amorphous phosphorus, which is not poisonous, and as little of it actually burns on the friction of the match very little oxide of phosphorus is formed. Some of the matches contain the poisonous lead oxide or chromates as oxidisers, while in others potassium chlorate and manganese dioxide are employed for the same purpose. In spite of the enormous number of matches used the fumes they give off on combustion cannot be considered a serious source of mischief. But these fumes do unquestionably pollute the air, more especially when they are used frequently, as in a railway carriage or smoking saloon. We may be thankful, however, that both the old yellow, or "live," phosphorus match and the sulphur-tipped lucifer are extinct, inasmuch as their effect in vitiating the air was appreciable.

SOME CELLULAR REACTIONS IN DIGESTION STUDIED BY INTRA-VITAM STAINING METHODS.

THE application of intra-vitam staining methods to the study of biochemistry has already resulted in some notable additions to our knowledge of living cells and their protoplasmic activities. We publish in this week's issue of THE LANCET an interesting communication from Professor Edwin E. Goldmann, of Freiburg, who has applied the method very extensively and has arrived at some novel and suggestive conclusions. The observations upon which his present communication is based deal with the changes observed after the intra-vitam injection of stains such as pyrrol blue, more particularly in certain cells of migratory or wandering character found in the connective tissue of the intestinal wall, especially in the reticular tissue of the villi and the mucous membrane. He has found that after injection of this substance, if the digestive tract is examined when digestion is at its full height, great variations in the colouration of the various parts are noticed, the œsophagus being colourless, the cardiac portion of the stomach almost white, and the pyloric region dark blue. The duodenum and upper portion of the jejunum are also stained, but the colour gets less in the small intestine, reappearing abundantly in the lowest portion of the ileum. It is deeper in the cæcum and upper part of the colon, fading off again towards the rectum. These variations in colour appear to be due to the number of certain cells present in the connective tissue, which Professor Goldmann has called pyrrol cells on account of their great affinity for pyrrol blue. These cells seem to possess great chemotactic irritability, to present very active amœboid movements, and to be phagocytic. He has observed that they are abundantly present where digestion is proceeding actively, but that they are found but seldom when food is withheld. Professor Goldmann gives reasons for believing that these cells are derived from the omentum and also from the spleen and lymphatic glands. He has also noticed that these cells show remarkable variations in appearance according to their position, some being loaded with coarse bluish-green masses and with brown clumps of pigment, which he regards as disintegration products of blood pigment, while other cells are relatively poor in granules. The former are usually to be found most abundantly in the apices of the villi, while the cells poor in granules are more numerous in the submucosa, or even in the muscular layer. Professor Goldmann suggests that these pyrrol cells, when they enter the intestinal wall, are laden with useful substances which they discharge in the connective tissue of the villi, and that they return in a comparatively empty condition. He also refers to another variety of cell which is found free in the connective tissue of the mucous membrane in varying numbers according to the stage of digestion. These cells are of acidophile character, and appear to act as true ferments. Without further details of these observations it is impossible to criticise them or to appreciate their full significance, since all the stages in their transit from their sites of origin to the intestine and back are not given. They are, however, of great interest, and if confirmed and extended, may throw considerable light upon the digestion and absorption processes occurring in the intestinal wall. They should certainly stimulate further work on similar lines.

AN EXAMPLE OF DIRECT INFECTION OF CHILDREN WITH HUMAN TUBERCULOSIS.

IN no department of medicine is there more urgent need for distinguishing between theory and fact than in respect to tuberculosis. The nation stands committed to a campaign against this disease, but it cannot be maintained that the plan of campaign which has been resolved upon is based entirely upon ascertained facts. There are many notable gaps in our knowledge, and it is to the provision which has very wisely been made for research that we must look for the filling up of these. One aspect of the disease in which a better understanding is urgently needed is that of the incidence of tuberculosis in infancy. How often does it occur, by what criteria may we distinguish its presence, and how do the bacteria gain access to the body of the host? A piece of research which, though small in extent, is thorough in execution, and therefore convincing in its conclusions, has been published by Dr. Alfred F. Hess, of New York, in the *Journal of the American Medical Association* for May 24th. Ten children, varying in age from 2 to 3 years and occupying one ward in an infant asylum, were on May 15th, 1912, put under charge of a new nurse who had recently been treated in a sanatorium for phthisis. Towards the end of June this fact, together with evidences of recrudescence of the infection (including the presence of bacilli in the sputa), was discovered, and on July 1st, 1912, she was removed from the ward. It happened that all the children had been subjected in April to a routine von Pirquet test, to which three (one of them the child of a tuberculous mother) had reacted positively. These tests were repeated about the middle of July, soon after the nurse left, with precisely similar results. At the next repetition of the test in October, however, a remarkable alteration was observed; all the children reacted positively and the same result was obtained when the test was repeated in January, 1913. It is noteworthy that with one doubtful exception not one of these children has shown any symptom or sign of active tuberculous infection apart from the positive cutaneous reaction. The connexion between the alteration in the reactions of this group of children and the diseased attendant is further established by the exclusion of other sources of infection. The milk-supply is thoroughly pasteurised, the rest of the attendant staff is entirely free from the disease, the children do not leave the premises at all, and there has been no alteration in the tuberculin reactions of any other of the children in the institution. Finally, it seems possible that the fact that the children were suffering from stomatitis while under the care of the infected nurse may give some hint of the path of invasion.

SPEECH WITHOUT A LARYNX.

NORMAL speech, of course, depends upon the production of sounds in the larynx which are modified in the throat, nose, and mouth. In the *Journal of the American Medical Association* for May 24th Dr. E. W. Scripture has reported a case in which he accomplished the apparently impossible feat of rendering speech possible in the absence of the larynx. The patient was a man whom he saw three months after the larynx had been removed for carcinoma. The passage of the mouth to the trachea was entirely closed. He breathed through a tracheotomy tube. He was taught to speak in the following manner. To produce "p" he was told to close his lips and compress the air in the mouth and pharynx by tension on the cheeks and the back of the throat. On opening the lips there was a puff of air that produced an unusually audible "p." For "t" he placed the point of the tongue against the palate and compressed the air in the mouth and pharynx; when the closure by the tongue was released a "t" more distinct than normal was produced. For "k" the same mechanism was used except that the back of the tongue was raised. For the fricatives "f," "s," "sh" (as in "shoe"), and "th" (as in "thin") in normal speech a narrow passage is formed between the lips, teeth, tongue, palate, &c., and air is emitted without vibration of the vocal cords. Hence these sounds are called surds. The patient produced them by means of a blast of air furnished by mouth and throat compression. Normally the explosives "b," "d," and "g," and the fricatives "v," "z," "sh" (in pleasure), and "th" (in "thine") are produced by the same movements as the surds mentioned above, but in them the larynx vibrates. They are called "sonants." Without the laryngeal vibrations there is no difference between "p" and "b," "t" and "d," "f" and "v." To make a difference that would introduce the laryngeal tone Dr. Scripture adopted the ingenious device of using the air from the tracheal cannula. Any expiration produced a rushing sound. The patient was taught to produce a faint rushing sound during the production of all the sonants which made a marked difference between them and the surds. In normal speech the vowels are due to vibrations from the larynx which arouse resonant vibrations in the cavities of the mouth and throat, varying according to the position of the lips, tongue, and velum. With no vibrations from the larynx spoken vowels cannot be produced, though whispered vowels can be produced by the air which has rushed through the larynx. In the patient the rush of air through the pharynx and mouth when an explosive was ended gave an indication of the following vowel, but the sound was weak, brief, and wanting in distinctness. To remedy this to some degree he was taught to expire through the tracheotomy tube for each vowel. The vowels were thus more clearly distinguishable from pauses which otherwise occurred. The mechanism of each sound was thus explained to the patient. He found the work interesting, and carried it out so successfully that speech could be heard distinctly across a large room.

THE London County Council has accepted a tender of £43,248 for the erection of the Maudsley Hospital for Mental Disease at Denmark Hill, Camberwell.

Dr. Cyril Hartley Durrant has been appointed an official member of the Legislative Council of the Island of St. Vincent.

BRITISH OTO-LARYNGOLOGICAL SOCIETY. — A clinical meeting of this society will be held at the Medical Society's rooms, 11, Chandos-street, W., on Wednesday, July 16th, at 5 P.M. Cases 4.30.

THE MUSEUMS ASSOCIATION.—The annual conference of the Museums Association, which is to be held at Hull this year, will open on Monday next, July 14th, under the presidency of Mr. E. Howarth, F.Z.S., curator of the Sheffield Public Museums and Art Gallery. Many interesting subjects are to be discussed, among them being the possibility of showing our museums and art galleries to the blind, arising out of experiments made by Mr. J. A. Charlton Deas at Sunderland Museum and Art Gallery. The peripatetic guides at the British Museum (both Bloomsbury and South Kensington) will attend to give their experiences in the personal conduction of visitors around these great institutions; and Professor Rathgen, of Berlin, is to discourse on the decay and preservation of antiquities. The local secretary for the meeting is Mr. Thomas Sheppard, F.G.S., the Hull Museum. The secretary of the association is Mr. E. E. Lowe, B.Sc., F.L.S., curator of the Leicester Museum and Art Gallery.

A PHYSICIAN'S JOURNAL.

A REPORT on the manuscripts of Mr. Allan George Finch, of Burley-on-the-Hill, Rutland, has just been issued by the Historical Manuscripts Commission. The papers consist mainly of the correspondence, private and official, of Heneage, Earl of Winchilsea (Ambassador to the Porte, 1660–1668), Daniel Finch, second Earl of Nottingham (Secretary of State 1688–1693), and other members of the Finch family, including Sir John Finch (second son of Sir Heneage Finch, Speaker of the House of Commons). The latter, born in 1626, after graduating M.A. at Christ's College, Cambridge, went to Padua and took the degree of M.D. at Padua University. On returning to England in 1661 he was elected an Extraordinary Fellow of the College of Physicians in London and was created M.D. of Cambridge. The house now transformed into Kensington Palace belonged to him. In 1665 he was sent as Minister to the Grand Duke of Tuscany and in 1672 was promoted to be Ambassador at Constantinople. He remained there till 1682, when he came back to London, died in November the same year from pleurisy, and was buried at Cambridge by the side of his old friend and fellow-physician, Sir T. Baines. In the volume now published the principal document from his pen consists of a small vellum-covered book, in close and crabbed writing, containing a journal, extending to 19 pages, of a visit to the continent, interspersed with anecdotes of people, descriptions of buildings, &c., the period covered being from October, 1651, to April, 1652. There is nothing in it of medical importance, but the following extracts from it are not without elements of interest :—

Tuesday, October 21, we came to Rye. Sunday, Nov. 2, wee sett out from Rye, but by reason the winde was adverse returned. A larke pursued by a hobby flew into the hands of one of our company and was released at shore. Tuesday, Nov. 4, ten at night wee reentered our vessel which was taken from the Ostender, swift of sayl but not above 20 tun. The captain's name was Mansier, a man skilled in musick and mathematiques. He told me that sayling to the Islands of St. Christopher and Bermudas about 1639 there happened a storme wherein his own vessel and 70 more were cast away, and that he saved his life by swimming above 16 houres space. He told me upon his faith that he then did see two young ship boyes alive now in Diepe lye fast asleep in the midst of the storme upon a chest and that they came sayling upon the waves driven by the winds to the shore and that in all that space the chest never turned; being awaked they were some time before they remembered they were cast away by a storme. ..... I paid for my portage 13*s.* 4*d.* and from Rye I came by 10 of the clok Wednesday morning Nov. 5–15 to Diepe. The haven is a safe road when you are in it, but by many circuits you come into the port, so that strangers are forced to have a pilot for which each passenger shall pay ½ pistoll. And though wee came without such a shallop yet wee were forced to pay a quart d'escu to land.

The Castle of Diepe is the house of the Duke Longeville. Wee were sent to by that Governour to know if wee knew anything of the taking of Jersey and by that means we got into the Castle, which hath alwayes double guards and two drawbridges to passe. It commands the harbour and is well stored with guns. Theres space to lodge 10,000 men in it. Here Henry the 4th was beseiged by the Duke of Maine. Nov. 6–16 I hired a horse from Deape for 66 sols. to Rouen, where I came that night. It is the biggest city in France next to Paris unless Lions stand in competition with it. But it is seldom free from the plague by reason that it is encompassed on every side with hils, so that the aire is not free. ..... The church of Nostre Dame built by the English (as appears by the stones of the walls, whose situation makes the letters which spell the word God) is very large and hath two towers, in one of which theres a bell of 40,000 lb. One of the towers is called the Butter Tower, being built by Cardinall Amboyse, Archbishop of Rouen, out of that money which he gott by indulgences to give leave to eat butter in Lent. The church is richly endowed and hath more rich ornaments than any church in France unlesse St. Denis. But out of one of the priest's garments wherein ther was a diamond Queen Katherin Medicis when shee was married stole it and putt a topaz in the roume of the same magnitude, which is as big as an hazell nutt. ..... From Rouen I went with the messenger for 12*l.* to Paris on Saturday and came thither the Sunday Nov. 9–19.

Paris is farr more populous then London and somewhat bigger because rounder, but I doe not think it so long from Port Sainct Denis to the Port St. Marceau as from Westminster to the Tower. The streets are more durty than London, yet one may walke cleaner because the streets are better paved. There are so many bridges in it that it causes inundations in the lowe parts of the city, and these bridges are so ill built that they fall down often. Cardinall Richlieu intended to cut the Seine into the Loyre to prevent these inundations. And though Paris is situated so low and all the filth of the houses emptied into the streets, yet the plague is very rarely amongst them; but the diseases most frequent amongst them are the dropsy shedstone and fievres. And the Paris physitians, be the disease what it will, always open a veine and prescribe a ptisan and a purge of manna.

I was acquainted with Sir K. Digby who lodged in the Colledg of Bon Cœur. After the death of his Lady Venetia Stanley whom the King caused to be opened upon suspition of some poyson his enemies had suggested to have been given, he lived in Paris like an Anchorite in a long gray coat accompanied with a great English masty [i.e., mastiff] and his beard down to his middle, till the Princesse of Germany came to visit him and told him 'twas not fitt for a man of so great parts to bury himselfe alive, after which time he began to leave of that old fashion and viseted the Princesse of G. so often and gave her so many presents that the Prince sayd either he was a cockold or Sir K. D. a foole. And after there was a report that he was married to Sir B. Gerbier's daughter, but it was not so. But he I thinke promoted her to the English Nunnery in the Faux Bourg St. Marceau by the Fosse, where on her probation, she being a famous beauty, the Queen of France with all the nobility came to see this unusuall example. And the Queen with her own hands cutt off her haire which was flaxen, but after two moneths of her noviship shee run away from the monastery and lives miserably now deprived of her ornament of haire. .....

Sir Kenelm Digby told me that he went to Dr. Lamb in the Tower by permission of the Duke of Buckingham to convince him of apparitions, which he had denied to my Lord Cherbury, and Lamb told him that he would show him somewhat. But he did nothing but make him looke in a cylindricall glasse and broughte shapes of some horrid thing with him and bid him see in what terrible shape it rose, who discovering the imposture he told him in fine that his business was to be a pimpe and bid him name what lady he desired, and that my Lady of Purbeck being hated by the Dutchess of Buckingham because she had then never a child and by the Duke because he would have helped her to one, it so happened that there was found a dead child in the privy of her house which being emptied by the next neighbour was strait spread abroad. The Dutchesse accused my Lady of murdering her child, who remembering that shee had turned away a servant upon suspicion of having a child sent a constable and apprehended her who, animated by the Duke of Buckingham, accused my Lady of it. My Lady desired the child might be taken out of the grave (for they buried it after the Crowner had done his office) to see if it would bleed. The child had been above 10 weekes dead in the privy and was bound up in clouts to keep it from the filth. My Lady notwithstanding the fowel stench touched it and no blood came, which her enemies laughed at saying it could not come out of a body corrupted. The wench she touched it boldly also, crying I am as innocent as you, when strait the blood gushed out of the nose and ears. Her enemies cryed now the body was bruised shee (Lady Purbeck) would make it bleed if shee touched it, shee touched it but no blood would come; she tooke the wench by the hand to make her touch it, but she run back, and falling down upon her knees confessed the fact. But my Lady would not suffer her to be pardoned least it should be said shee bribed the wench to confesse it. .....

In Paris the Palais Luxemburgh, the house of the Duc d'Orleans, built by our Queen Mother, is the best house in all respects; but why shee would be paynted naked in the gallery I know not. The Carthusians are nigh to this who, though they never eat no flesh, yet feed upon macreaus [macreuses] Scotch barnacles. They do not allow Bezar [*Lapis bezoar*, supposed to be an antidote for poison] because the stone of goats, nor any medcin comming from fleah in any case. To study chymistry is forbidden by their statutes as Father Mignet told me. They pray at least 11 houres in the 24, so that they have little time to study. .....

At Tournay College there's a picture of one of that College executed at London according to the manner of the execution. The like I saw at Dijon in the Carthusians Church, of the Carthusians executed by Henry the 8th, but there they are represented to be boyled in cauldrons and all for refusing to consent to the marriage. .....

One may be of the clergy and yet marry, for to have the *tonsura prima* is enough for that and by vertue of that cutting off a little lock of haire a man may possesse any ecclesiasticall preferment, as the Prince of Conté who hath at least 40,000 l. in church preferment *per annum;* and the Archbishop of Rheims was lately made so at 18 years of age. Mr. Walter Montague gott the promise of the first Abbey that fell, and there died one who had six, of which the worst fell to his share through the Queen of France whose favourite he is, by reason he was then her servant, when shee was hated by Cardinall Richlieu which was before shee had children. but after the Cardinall had sent for St. Isidores finger out of Spain and had caused prayers to be made for the Queen that shee might have a child they grew better friends and there's the picture of a father hanging up in the church belonging to the Charité in the Fauxbourghs St. Jermin who saw a child presented to him by the Virgin Mary and was told that it should be the Queen of France's child, upon which reasons the child now King is called *A Deo Datus.* All this came to passe after the Duke of Orleans refused to marry Dutchess Guilliaume, Cardinall Richlieu's niece. My Lord Montagu as I heard (from Mr. Sh.) when he was abed, made one of his priests come when he was familiar with his wife who was a Protestant and with holy water to besprinkle them and to use *In Nomine &c.* that he might have a sonne. Upon whom when he had settled his estate he would have disinherited him, and seeing he could not by law, tooke a journey in his old age to Rome that the Pope might by a *Ban* procure his sonne to resign his estate; but the old man died in his journey to Flanders .....

The Hostel Dieu for the number of diseased is a famous hospital, but there's eight in a bed. But the Charité is the best accommodated that can be, as well as any gentleman in his own house. I believe there's about 200, every man in a bed singly The paynes of those religious persons which tend them is to be pitied. .....

Thursday, March 14 I sett out from Paris in the boat of Barsus. One Father Mignet a Carthusian, was in our company whose man the first night where he lay rose out of his bed which joyned to mine and tooke my breeches, which I being cold missed and putting my hand out of the bed to reach them found them between his knees which I plucked from him with difficulty, the fellow counterfaiting a sleep and holding fast; and I passed it by as so. That same day we passed Corbell, a strong town of which by reason it abounds with peaches it is said *Corbell empeasche Paris.* March 15 wee passed Montereu, a very strong town where the Count Grandison and my Lord Digby were to lodge that night with 6000 men. [Brief references follow to sojourns at Sens, Auxerre, Vermanton, Noyers, Monard, Baineux, Chanseau, and Dijon, which latter was reached on March 29.]

Dijon is not above the bignesse of Cambridge. In it is a church built round like the Pantheon at Rome and open at top, by the inhabitants said to have been an Ethnick Temple, but by the Benedictines of 1400 years standing dedicated to Benignus, the disciple of Polycarpus, who planted the faith in Burgundy. St. Bernard's father's house, a quarter of a league from Dijon, is a place of devotion and a convent of about eight Bernardines. I was sick till Thursday of an asthma We went Friday April 5 to Beaune where there's the best wine of France, but though it getts the name 'tis onely the crevé of

the hills which are exposed to the south whose wine the inhabitants pay 5 sols. the pint, that in the valley is but 2 sols., and but ordinary wine. The hills yield but a small quantity. To Chalon we came Aprill 6, which wee had as little time to see as Beaune (a pretty town where there's the best hospitall in France). In Chalon the Prince of Condé hath a small but pretty house, and the Nostre Dame de Chalon is famous for miracles, before whose shrine I saw many crutches hanged up which they say were the *vota* of the healed.

Sunday, Aprill 7, wee tooke boat for 20 sols. We head for Lions, but lay all night on the water that wee might reach Macon by morning, which is a pretty town but in passage we could not see it particularly. To Lyons wee came on Tuesday. Aprill 9; every man pays a sols for entrance and no man is permitted to lodge there unlesse he hath a tickett. .....

On Sunday, Aprill 4–14, for 181. 1 tooke horse with the messenger for Geneve but so extreamly sick that I was, besides asthmaticall, generally distempered. We had a cold east wind all that day; I eat nothing nor the next day till noone (except a little broth in the morning), when at Nantua I eat a little. There's a little lake betweene two cliffes of a rock of an incredible depth but the people say that and that of Geneve are bottomlesse. Tuesday, Aprill 6–16, wee passed within 2 leagues and a halfe of Geneve a castle called L'Escluse which is situated under a rock of an unmercifull heighth and below a vast precipice in whose bottome the Rhosne passes. It's impossible to passe to Geneve from Lions but by this way, and but two men a breast can stand in the passage. This castle and all the country betwixt this and Geneve belonged to the Duke of Savoy, but this castle was stormed by the Genevois and in the interim men lett down by ropes from the top of the rock and so taken. They sold it for 50,000 crowns to the King of France who stiles himselfe their protector, but I thinke nothing protects them more than the inaccessible mountains which an army can with difficulty passe.

Geneve is seated at the end of the lake, which is on the North-east side of the town, after the beginning 20 mile in breadth and 30 in length, and on the other side upon a hill it is walled and compassed with a ditch, but not so fortified but that other towns are better provided in that kind. There's a perpetuall garrison and every night there are sentinells upon the lake which they chayn that no boat can passe, and upon the walls. About 50 years since they were attempted by the Duke of Savoy, whose army was within 6 leagues of them but pretended friendship and in the meantime corrupted him that sett the watch and about 60 gott into the town, men of quality, but offering to ravish a maid that went to call a midwife to her mistress they were discovered and taken and all hanged and there heads at this day are hanged up in case of warre. The Switzers and they are in a strict league offensive and defensive, so that Basle, Berne, and two other cantons if they have warre are to send them 2400 men and the Genevois if they have warre are to send them 1200 men and to pay them for three months at their own charge. They have alwayes two years provision of course in the town. Every Saturday they cry the lands of those men that are in debt and sell them to them will give most. They punish here malefactors of all countries; whilst they doe justice the town gates are shutt, the bridges drawn and sentinels sett, which happened on Tuesday April 6–16. A Savoyard was condemned for a witch and scorched first almost to death then hanged and afterwards burnt. It rayned and yet wee were forced to stand an houre out of the town till execution was past, it not being lawfull to lett down the bridg. There was not one executed before in 30 years.

On Wednesday, April 7–17, I came to the house of Monsieur Parost that married a Welsh woman; he was steward to Monsieur Beleivre the French Ambassadour. In three dayes, finding English beere and conveniences, after a purge I was perfectly well. ..... Those that dye here are carried out of the town and thrown into the pitt without anything said concerning them, nor is it lawfull to make any solemnity at the death of their friends or for a mother to mourn for her child. ..... It's not permitted to any to weare satin or silver in the town by reason there being a parity luxury in apparrell would undoe the meaner sort. At church the servants and others sitt as they come and no distinction of places or pews. If any powder their hair they are called into the Chamber of Reformation if they be of the inhabitants, but strangers have more liberty If any notice be taken of any loose carriage they are called thither. There's no good water in the town, that of the lake feeding the springs and that nourished by the hills of snow, which begirting the town make the ayr raw and unwholesome, so cold that in vintage time they have gathered their grapes up to the midleg in snow. .....

They trye any malefactor by the lawes of Geneve though his crime be committed in a forrain country. They give the strappado to extort confession if the person accused denies the fact, for they cannot condemn unlesse the party acknowledges the crime. ..... One was excommunicated here for drinking a health to the Devill, but upon the testimony of their confederates in Languedock that he repented he was readmitted into the church after two yeares.

From Geneva Sir John went to Milan, but the Journal does not carry him so far, leaving him in a small cottage at the top of the Simplon, weather-bound by "the abundance of rain."

LITERARY INTELLIGENCE.—Messrs. Cassell and Co., Limited, announce for immediate publication a second edition of Dr. G. E. Herman's "Student's Handbook of Gynæcology," revised by the author, with additions by Dr. R. Drummond Maxwell.—Professor James Walker, of Edinburgh University, is completing a "Text-book of Organic Chemistry for Students of Medicine," which will shortly be published by Messrs. Gurney and Jackson, London, and Messrs. Oliver and Boyd, Edinburgh.—An important work on Arterial Disease and Angina Pectoris, by Sir T. Clifford Allbutt, M.D., F.R.S., is announced for publication in the autumn by Messrs. Macmillan and Co.

FIFTY-FIFTH ANNUAL REPORT OF THE GENERAL BOARD OF COMMISSIONERS IN LUNACY FOR SCOTLAND.

AT the beginning of this year there were in Scotland 19,188 insane persons of whom the Commissioners had official cognisance. In 1912, as compared with 1911, there was a total increase of 133, due to a decrease of private patients by 18 and an increase of pauper patients by 151. Decreases, amounting in all to 109, have occurred in 17 counties or urban areas, while increases amounting in all to 260 have taken place in 20 counties or urban areas. The decreases are mainly distributed among counties with falling populations and the increases in counties having an increasing population. There are, however, districts which show a substantial increase in numbers which cannot be attributed to increasing population.

The total number of patients admitted to establishments during 1912 was 3469, 20 more than the average for the quinquenniad 1905–09. The highest proportion admitted per 100,000 of the normal population was 81·2 in the year 1902, in 1912 the proportion was 73·2. The Commissioners point out that the average number of voluntary patients admitted for the ten years 1903–1912 was 99. The number resident on Jan. 1st, 1913, was 130. It appears that for many years nothing has occurred to indicate any difficulty or disadvantage traceable to the presence of this class of patients in asylums. We believe that the number of such patients to a certain extent marks the confidence of the general public in the therapeutic value of institutional treatment, and it is satisfactory to see an increase in the numbers of this class of patient. 198 private patients were discharged recovered during 1912. This is 12 less than the number in the preceding year and 31 below the average for the five years 1905–09. The number of pauper patients discharged recovered was 1090, which is 71 less than in the preceding year and 61 less than the average for the five years 1905–09. The recovery rates have, it would seem, in recent years been unfavourably affected by the increased use of observation wards connected with the parochial hospitals of several large parishes which receive persons suffering from passing attacks of mental disorder, of whom some, in the absence of such wards, would have been removed to asylums and would have been discharged recovered shortly after admission. The lowering of the rate may, however, be mainly ascribed to the accumulation of chronic patients and to the fact that the development of nursing and the improved means of hospital care in asylums have led to their being more freely used for the reception of patients whose age and mental and physical condition are such as to preclude hope of recovery.

The number of private patients who died in establishments during 1912 was 228, 37 more than the average of the five years 1905–09. The number of pauper patients who died was 1295, 116 more than in 1912 and 139 above the average of the five years 1905–9. The death-rate per cent. of number resident in all establishments was 9·8 for the past year, and is higher than it has been for many years past, the higher rate being no doubt due to causes similar to those which have lowered the rate of recovery.

In the Commissioners' report on the present condition of establishments for the insane it is pleasant to note the approbation which is expressed of the standard of nursing which has been reached. In certain very large asylums we read that no restraint or seclusion had been found necessary.

As regards boarded-out pauper patients, the Deputy Commissioners report very favourably upon the care and attention given by the guardians to their charges. It would appear, however, that the circumstances of patients left in the care of their relatives were less satisfactory, the average standard of comfort, cleanliness, and well-being being lower than among the patients residing with selected guardians.

THE SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE (1913).

SECTION ON HISTORY OF MEDICINE.

THIS section will meet in the library of the Royal College of Physicians of London, Pall Mall, S.W., under the presidency of Dr. Norman Moore. Each session will be fully occupied with the reading and discussion of independent papers, of which a final complete list will shortly be published. In spite of the fact that this is the first International Congress of Medicine at which a section has been specially devoted to this subject, and in spite of the late date at which it was determined to organise it, the profession has testified abundantly to the interest established in the subject by the very large number of contributions that have been promised from all parts of the British empire, the continent, America, and elsewhere. During the session of the Congress there will be exhibits of early medical books, manuscripts, and other objects of medical interest in the Royal College of Physicians.

The section has also, in conjunction with Mr. H. S. Wellcome, organised an important Historical Medical Museum, which was opened on June 24th and will remain open for some three months.[1] This museum has been accommodated in extensive buildings to the east of Welbeck-street, and will be entered from Wigmore-street. It is by far the most important collection of objects illustrating the historical aspects of medicine that has ever been brought together in any country. A serious effort has been made to illustrate every branch of medical and pharmaceutical science and to arrange the material so as to display the evolution of these sciences. A full catalogue is in course of preparation.

The authorities of the British Museum have also kindly made arrangements for an exhibition of early medical books and coins and medals of medical interest in the King's Library of the British Museum from August 6th to 12th.

SUBSECTION ON ANÆSTHESIA, GENERAL AND LOCAL.

The president of this section is Dr. Dudley Buxton, and the meetings will be held in one of the rooms of the Imperial College.

There are five discussions, of which the first is on Recent Methods for Producing Analgesia and the second on Recent Methods for Producing General Anæsthesia, both of which should prove interesting, as a good deal of new work has been done lately, especially in America.

Another interesting topic is that on the Post-operative Effects and Toxæmias Associated with Anæsthetics, to be introduced by Dr. William Hunter. A large number of foreign visitors have notified their wish to take part in these discussions, and it is hoped that the British anæsthetists who have not sent in their names up to the present time will notify the honorary secretary, Dr. Herbert Scharlieb, C.M.G., 49, Wimpole-street, W., of their wish to speak.

A number of papers have also been promised for the afternoon sessions.

The ladies' committee of the subsection, in conjunction with the ladies of the section of surgery and the subsection of orthopædics, has invited visitors to a garden party on August 8th. The president and council of the subsection will give a lunch on Sunday, August 10th, in the grounds of the Zoological Society by kind permission of the Fellows of that society. Application for tickets should be sent to the honorary secretary.

SECTION OF MEDICINE.

The dinner of the Section of Medicine will he held at the Connaught Rooms, Great Queen-street, Kingsway, W.C., on Friday, August 8th, at 7.15 P.M. precisely.

Tickets, price 25*s.* (including wine and cigars), may be obtained from Mr. George Bethell, 11, Chandos-street, Cavendish-square, W., up to August 5th, and after that date at the Central Bureau, Albert Hall. Applications for tickets must be accompanied by cheque or money order, payable to Mr. George Bethell. Members of Congress are requested to apply early for their tickets so that suitable seating arrangements may be made.

[1] THE LANCET, July 5th, 1913, p. 34.

Public Health.

ANNUAL REPORTS OF MEDICAL OFFICERS OF HEALTH.

City of Westminster.—The wide scope of the sanitary work carried out in this portion of London, with its great variety of population is, as usual, well illustrated by Dr. F. J. Allan's last annual report. As with most reports which are now being issued, much prominence is given to the action taken to deal with tuberculosis cases since notification became general and the nature of the new arrangements which will be necessary in connexion with sanatorium benefit. In Westminster systematic inquiries have been made regarding notified cases and their families by a special "phthisis visitor," but it has been impossible to keep touch with, or to obtain information about, a large class of consumptives who are "casual" or homeless, while a number of persons notified from private addresses are found to be in lodgings for a short time only. One source of homeless persons in Westminster—the seats and corners of the Thames Embankment—has been to a large extent removed by the Local Government Board scheme for issuing lodging-house tickets. At the end of October a central office was opened by the Metropolitan Asylums Board at Waterloo Bridge, where tickets distributed by the police are presented. Every man and woman who receives a ticket is assured of food and shelter, while opportunity is afforded, through charitable agencies coöperating in the work, of helping any case that seems at all likely to respond to remedial treatment. Under the auspices of the Health Society a scheme was inaugurated in January, 1912, to provide for the periodic medical inspection of children in the Soho portion of the district. A special feature of this scheme is that while the occasion of visiting the families concerned or bringing the child to the inspecting centre is the notification of a birth, the system aims at keeping the children under observation and medical advice right up to the age of their entering school, when their medical records are transferred to the school medical officers. In this way many physical defects—especially dental caries, adenoids, and rickets—are discovered at a much earlier stage than would otherwise be the case, with corresponding advantage to the child and saving to the education authority. Dr. Allan goes so far as to say, in fact, that the problem of the defective school child in most instances resolves itself into the problem of the under-school-age child, and he considers it hardly likely to be solved by any scheme short of a national one ensuring to all children regular medical supervision from birth to school age. The inspection centre is staffed by a medical officer and a trained nurse, assisted by members of the society. A second centre is now to be opened in Roehampton-street to serve the Pimlico and St. John's districts. Several new artesian wells have been sunk in Westminster during the past year. If it is proposed to continue driving these wells on any considerable scale the fall which has in the past occurred in the underground water levels of London should be remembered. The three artesian wells near the National Gallery, which now can only supply one of the Trafalgar-square fountains, formerly also served most of the public buildings in Whitehall, as well as Millbank Prison and the Houses of Parliament. Dr. Allan refers to the increasing tendency in Westminster to form deep basements and sub-basements, and the utilisation of such places for workrooms and restaurants. Frequently these basements are below the level of the sewers, and they have to be drained by special ejector systems. Unless the pumping is automatic in its action nuisance arises from the sewage being lifted in bulk into the sewer, and causing escape of effluvium from the ventilating grids in the roadway. The ventilation of these underground places is at best difficult to contrive, and sometimes is very faulty; in more than one instance the inlet for fresh air was in contiguity with the outlet; in one case the outlet from the shaft from the lavatories was being placed immediately below the intake for the grill-room; in others the source of the air was a central well into which kitchens, lavatories, or other rooms were sending a varied selection of smells. Dr. Allan points out that the difficulties in securing proper ventilation and temperature in these places are increased by the fire requirements of the county council, and urges coöperation

between the fire-preventing and sanitary authorities to avoid conflicting official directions being given. Referring to the decision of the High Court in the recent appeal case of Spiers and Pond, Limited, *v.* Green, Dr. Allan states that it will remove many small milk vendors who keep general shops from the supervision of the sanitary authorities, and suggests that this position should be reversed by amendment of the Milk and Dairies Bill.

Borough of Deptford.—Dr. W. H. Whitehouse reports that very unsatisfactory conditions have been found from inspection of houses let in lodgings in this metropolitan borough. For years only about 10 per cent. of sublet houses have been registered, while the by-laws regulating them need amending and strengthening. It is still common for tenement houses to have only a single water-tap in the scullery on the ground floor for the use of the various families, with the result that habits of uncleanliness are produced and contamination of the water used for drinking and cooking becomes common. All waste water and slops have to be taken to the basement in the same way, while these upstairs lodgers have no proper places in which to store food or any conveniences for washing. Many other indications can be found in the report of the unhealthy conditions which obtain in the poor-class properties which are a conspicuous feature of this part of London. Tuberculosis, among other diseases, is specially likely to be propagated under such conditions, and their remedy must go hand in hand with the clinical work of the tuberculosis dispensary if the good results which the report anticipates from a borough tuberculosis dispensary are to be obtained. Dr. Whitehouse has some strong observations to make on the evils of alcohol in general and "medicated wines" in particular, but it is not clear that the opinions which he expresses on the latter point are the result of any special investigation of the subject in Deptford. To prevent cancer a large number of "hints" are given, which include the avoidance of excessively hot food and drink, ices and iced drinks, the thorough mastication of all food, abstinence from alcohol, and ceasing to inhale cigarette smoke. The final direction is to "avoid injuries to the bones, joints, and breasts." "Hints" of this nature are sometimes useful, but are difficult to give without imperilling the sense of proportion which is one of the chief assets of a medical officer of health.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN the 96 English and Welsh towns, with populations exceeding 50,000 persons at the last Census, and whose aggregate population at the middle of this year is estimated at 17,852,766 persons, 8754 births and 3824 deaths were registered during the week ended Saturday, July 5th. The annual rate of mortality in these towns, which had steadily declined from 13·5 to 11·3 per 1000 in the five preceding weeks, further fell to 11·2 per 1000 in the week under notice. During the 13 weeks of last quarter the mean annual death-rate in these towns averaged 13·5, against 13·3 per 1000 in London during the same period. Among the several towns the death-rates last week ranged from 2·3 in Ealing, 2·9 in Gillingham and in Southend-on-Sea, 4·2 in Acton, 4·3 in Devonport, and 4·4 in Enfield, to 15·4 in West Hartlepool, 15·8 in Barnsley, 16·2 in Dudley and in Stockport, 17·6 in Halifax, and 19·6 in West Bromwich.

The 3824 deaths from all causes were 34 fewer than the number in the previous week, and included 281 which were referred to the principal epidemic diseases, against 307 and 306 in the two preceding weeks. Of these 281 deaths, 107 resulted from infantile diarrhœal diseases, 75 from measles, 53 from whooping-cough, 24 from diphtheria, 13 from scarlet fever, and 9 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases last week was equal to 0·8 per 1000, against 0·9 per 1000 in the three preceding weeks. The deaths of infants under two years of age attributed to diarrhœa and enteritis, which had been 100, 90, and 105 in the three preceding weeks, further rose to 107 last week, and included 28 in London and its 14 suburban districts, 15 in Liverpool, 7 each in Birmingham and Sheffield, and 5 each in Stoke-on-Trent and Leeds. The deaths referred to measles, which had been 83, 87, and 81 in the three preceding weeks, fell to 75 last week; of this number 20 occurred in London and its 14 suburban districts, 13 in Stoke-on-Trent, 8 in Manchester, and 5 each in Walsall and in Liverpool. The fatal cases of whooping-cough, which had been 56, 77, and 68 in the three preceding weeks, fell to 53 last week; 11 deaths were recorded in London and its 14 suburban districts, 7 in Liverpool, and 5 in Manchester. The deaths attributed to diphtheria, which had been 32, 23, and 31 in the three preceding weeks, fell again to 24 last week, and included 6 in London, and 2 deaths each in Stoke-on-Trent, in Manchester, in Bradford, and in Sunderland. The deaths referred to scarlet fever, which had been 22, 22, and 15 in the three preceding weeks, further fell to 13 last week, of which 3 were registered in London and 3 in Birmingham. The fatal cases of enteric fever, which had been 15, 8, and 6 in the three preceding weeks, rose to 9 last week, and included 1 in each of nine towns.

The number of scarlet fever patients under treatment in the Metropolitan Asylums and the London Fever Hospitals, which had risen from 1418 to 1604 at the end of the three preceding weeks, further rose to 1697 on Saturday last; 314 new cases were admitted during the week, against 186, 273, and 286 in the three preceding weeks. These hospitals also contained on Saturday last 819 cases of diphtheria, 439 of measles, 273 of whooping-cough, and 38 of enteric fever, but none of small-pox. The 925 deaths from all causes in London were 34 more than the number in the previous week, and were equal to an annual death-rate of 10·7 per 1000. The deaths referred to diseases of the respiratory system, which had been 122, 127, and 126 in the three preceding weeks, were 106 last week, and were 25 fewer than the number recorded in the corresponding week of last year.

Of the 3824 deaths from all causes in the 96 towns, 180 resulted from various forms of violence and 312 were the subject of coroners' inquests. The causes of 17, or 0·4 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified in London and its 14 suburban districts, in Sheffield, Leeds, Bristol, Bradford, Newcastle-on-Tyne, Nottingham, and in 64 other smaller towns. The 17 uncertified causes of death last week included 4 in Birmingham, and 2 each in Warrington, Blackburn, and Preston.

HEALTH OF SCOTCH TOWNS.

In the 16 largest Scotch towns, with an aggregate population estimated at 2,259,600 persons at the middle of this year, 1251 births and 595 deaths were registered during the week ended Saturday, July 5th. The annual rate of mortality in these towns, which had been 14·3, 14·8, and 14·9 in the three preceding weeks, fell again to 13·7 per 1000 in the week under notice. During the 13 weeks of last quarter the mean annual death-rate in these Scotch towns averaged 16·3, against 13·5 per 1000 in the 96 large English towns. Among the towns the death-rates last week ranged from 4·5 in Perth, 7·8 in Kirkcaldy, and 8·4 in Leith and Coatbridge, to 14·7 in Glasgow, 19·0 in Falkirk, 19·9 in Ayr, and 22·8 in Greenock.

The 595 deaths from all causes were 51 below the number in the previous week, and included 89 which were referred to the principal epidemic diseases, against 75 and 72 in the two preceding weeks. Of these 89 deaths, 38 resulted from measles, 21 from infantile diarrhœal diseases, 20 from whooping-cough, 7 from scarlet fever, 2 from diphtheria, and 1 from enteric fever, but not one from small-pox. These 89 deaths from the principal epidemic diseases corresponded to an annual death-rate of 2·1, against 0·8 per 1000 in the 96 English towns. The deaths attributed to measles, which had been 29, 34, and 35 in the three preceding weeks, were 38 last week, and included 27 in Glasgow, 6 in Aberdeen, and 2 in Dundee. The deaths referred to whooping-cough, which had declined from 40 to 15 in the five preceding weeks, rose again to 20 last week; of this number 11 were registered in Glasgow, 2 in Edinburgh, 2 in Aberdeen, and 2 in Hamilton. The fatal cases of diarrhœa and enteritis (among infants under 2 years of age), which had risen from 6 to 12 in the three preceding weeks, further rose to 21 last week, and included 9 in Glasgow, 3 in Greenock, and 2 each in Edinburgh, Dundee, and Aberdeen. The deaths from scarlet fever,

which had been 1, 3, and 5 in the three preceding weeks, further rose to 7 last week, and included 3 in Glasgow and 3 in Edinburgh. The deaths from diphtheria, which had been 7, 7, and 4 in the three preceding weeks, further fell to 2 last week; these 2 deaths were registered in Glasgow.

The deaths referred to diseases of the respiratory system, which had been 68, 86, and 78 in the three preceding weeks, fell to 71 in the week under notice; 24 deaths resulted from different forms of violence, against 20 and 27 in the two preceding weeks.

HEALTH OF IRISH TOWNS.

In the 27 town districts of Ireland, with an aggregate population estimated at 1,199,180 persons at the middle of this year, 580 births and 378 deaths were registered during the week ended Saturday, July 5th. The annual rate of mortality in these towns, which had been 18·5, 16·5, and 16·7 in the three preceding weeks, fell to 16·4 per 1000 in the week under notice. During the 13 weeks of last quarter the annual death-rate in these Irish towns averaged 19·1 per 1000; in the 96 large English towns the corresponding rate did not exceed 13·5, while in the 16 Scotch towns it was equal to 16·3 per 1000. The annual death-rate last week was equal to 16·8 in Dublin (against 10·7 in London and 14·7 in Glasgow), 15·9 in Belfast, 16·3 in Cork, 15·3 in Londonderry, 13·5 in Limerick, and 17·1 in Waterford, while in the remaining 21 smaller towns the mean death-rate was equal to 17·3 per 1000.

The 378 deaths from all causes were 6 fewer than the number in the previous week, and included 25 which were referred to the principal epidemic diseases, against 23 and 27 in the two preceding weeks. Of these deaths, 9 resulted from infantile diarrhœal diseases, 5 from measles, 4 from whooping-cough, 3 from scarlet fever, 3 from diphtheria, and 1 from enteric fever. The mean annual death-rate from these diseases last week was equal to 1·2 per 1000; in the 96 large English towns the corresponding rate did not exceed 0·8, while in the 16 Scotch towns it reached 2·1 per 1000. The deaths of infants (under 2 years of age) attributed to diarrhœa and enteritis, which had been 7, 6, and 11 in the three preceding weeks, fell to 9 last week, and included 5 in Belfast and 4 in Dublin. The deaths referred to measles, which had been 2, 7, and 8 in the three preceding weeks, were 5 last week, of which 2 were recorded in Tralee. The deaths from whooping-cough, which had been 5, 6, and 1 in the three preceding weeks, rose to 4 last week; 2 occurred in Dublin and 2 in Belfast. The 3 deaths from scarlet fever, which occurred in Belfast, were slightly above the average, as were also the 3 deaths from diphtheria, which occurred in Dublin, where also the fatal case of enteric fever was recorded.

The deaths referred to diseases of the respiratory organs, which had been 71, 61, and 60 in the three preceding weeks, were 54 in the week under notice. Of the 378 deaths from all causes, 132, or 34·9 per cent., occurred in public institutions, and 10 resulted from different forms of violence. The causes of 17, or 4·5 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; in the 96 large English towns the proportion of uncertified causes of death last week did not exceed 0·4 per cent.

THE SERVICES.

ROYAL ARMY MEDICAL CORPS.

Surgeon-General T. M. Corker, Deputy Director of Medical Services to the Sixth (Poona) Division of the Southern Army in India, has been granted six months' combined leave of absence home.

Colonel R. Kirkpatrick, C.M.G., Assistant Director of Medical Services, has taken up duty at Abbottabad Cantonment on transfer from headquarters at Sialkot.

Lieutenant-Colonel J. Donaldson has been appointed to hold charge of the Military Hospital at Jubbulpore. Lieutenant-Colonel G. H. Barefoot has been appointed to the London District for duty at the Military Hospital. Lieutenant-Colonel T. B. Beach has arrived home on leave of absence from Alexandria. Lieutenant-Colonel T. Daly has taken up duty at Chester in charge of the Military Hospital and as Senior Medical Officer of the North-Western Coast Defences. Lieutenant-Colonel R. J. W. Mawhinny has been transferred from Jullundur to Nasirabad. Lieutenant-Colonel R. Caldwell has arrived home for duty from the Military Hospital at Pretoria. Lieutenant-Colonel G. T. Rawnsley has joined at Manchester as Deputy Assistant Director of Medical Services to the East Lancashire Division.

Major H. J. M. Buist, D.S.O., has been transferred from the Military Hospital at Bloemfontein to Pretoria. Major G. St. C. Thom has taken up duty at the Military Hospital, Murree, on transfer from Rawal Pindi Cantonment. Major L. L. G. Thorpe has left Cosham and been appointed in medical charge at Rollestone Camp, Salisbury Plain. Major P. J. Probyn, D.S.O., has joined the Northern Command for duty. Major J. Poe has been appointed for general duty to the Military Hospital at Shorncliffe. Major D. J. Collins has been transferred from the Military Hospital at Colaba to Poona Cantonment. Major W. M. Power has been placed in medical charge at Languard Fort and the adjacent Camps of Instruction. Major F. M. Mangin has left the Aldershot Command for a tour of duty with the Allahabad Brigade. Major G. Buchanan has arrived home from India. Major A. E. Master has been appointed to the Military Hospital at Windsor. Major E. V. Aylen has joined for duty at the Military Hospital, Gharial. Major H. S. Thurston has arrived home for duty from Malta. Major J. Powell has arrived home on leave of absence from Egypt.

Captain R. R. Lewis has embarked for a tour of service on the West Coast of Africa. Captain W. H. O'Riordan has been transferred from Rawal Pindi Cantonment to the Military Hospital at Murree. Captain A. W. Bevis has been appointed to the Military Hospital at Belfast. Captain M. White has been placed under orders for a tour of duty in Burma. Captain H. W. Long has been placed in medical charge of the Royal Artillery Camp at Okehampton. Captain C. A. J. A. Balck has taken up duty at Dublin. Captain T. B. Moriarty has been appointed to the Aldershot Command. Captain V. C. Honeybourne has arrived home from Aden, tour expired. Captain G. S. Wallace has taken up duty at Woking on transfer from the Aldershot Command. The following Captains have been placed under orders to join the Royal Army Medical College for the next promotion courses to the rank of Major: J. B. Grogan, E. M. O'Neill, J. W. L. Scott, W. C. Smales, A. H. Bond, T. W. O. Sexton, A. C. Vidal, T. T. H. Robinson, G. H. Stevenson, W. H. Forsyth, R. W. D. Leslie, A. H. Jacob, H. G. Gibson, and M. P. Leahy. Captain A. W. A. Irwin has arrived home for duty from Gibraltar. Captain R. T. Collins has been placed in Medical Charge of Buddon Camp. Captain F. J. Stuart has been transferred from the Military Hospital at Agra Cantonment to Chakrata. Captain J. James has arrived home from Potchefstroom. Captain J. Startin has taken up duty at Satara Cantonment. Captain A. E. J. Fraser has arrived home for duty from Cairo. Captain A. C. H. Gray has been appointed Adjutant and Instructor to the Royal College of Surgeons (Ireland) Contingent of the Officers' Training Corps, Royal Army Medical Corps. Captain E. D. Caddell has been appointed to hold charge of the Military Hospital at Aden. Captain F. T. Turner has been granted an extension of Indian tour of service for one year. Captain J. A. Turnbull has been transferred from Worcester to Oxford. Captain D. G. Carmichael has been appointed to the Military Hospital at Rawal Pindi Cantonment. Captain W. W. Browne, specialist in physical training, has taken up duty at the Military Hospital, Poona Cantonment. Captain R. C. Priest has been transferred from the Military Hospital at Allahabad Cantonment to Lebong. Captain R. J. Franklin has joined at Lahore. Captain W. H. S. Burney has been appointed to hold charge of the Military Hospital at Attock. Captain R. H. Bridges has taken up duty as Adjutant of the Royal Army Medical Corps School of Instruction to the Manchester Division. Captain R. H. MacNichol has been appointed Specialist in Dermatology and Venereal Diseases at Woolwich. Captain F. Forrest has been transferred from the Military Hospital at Birr to the Curragh Camp for general duty. Captain R. E. M. Newman has arrived home for duty from Rawal Pindi Cantonment. Captain T. E. Harty has left the Dublin District for York.

Lieutenant P. Hayes, on arrival in India, has been appointed to the Military Hospital at Secunderabad to undergo a special course of instruction in Indian sanitation. Lieutenant A. Hood has been transferred from the Military Hospital at Lichfield to Richmond (Yorkshire). Lieutenant J. D. Bowie has embarked for a tour of duty in Egypt.

Lieutenant W. S. R. Steven has taken up duty at the Military Hospital, Quetta Cantonment. Lieutenant W. Stevenson has been transferred from Aldershot to Deepcut. Lieutenant J., H. M. Frobisher has taken up duty at the Military Hospital, York, on transfer from Leeds. Lieutenant J. Gilmour has been appointed to the Public Health Department in Egypt. Lieutenant W. T. Graham has been appointed to the Military Hospital at Lucknow Cantonment. Lieutenant P. M. J. Brett has left Cosham for a tour of duty in India. Lieutenant T. J. Hallinan has left the Dublin District.

INDIAN MEDICAL SERVICE.

Surgeon-General A. Crofts, C.I.E., has been appointed an additional member of the Imperial Legislative Council in India during the absence on leave of Surgeon-General Sir C. P. Lukis, K.C.S.I.

Colonel A. O. Evans has taken up duty as Officiating Inspector-General of Civil Hospitals to the Government of Burma, in succession to Colonel H. St. Clair Carruthers. Colonel P. Hehir has been granted six months' general leave of absence home from India.

Lieutenant-Colonel W. R. Edwards, C.M.G., chief medical officer in the North-West Frontier Province, has been transferred to officiate as Inspector-General of Civil Hospitals in Bengal Presidency during the absence on leave of Colonel G. F. A. Harris, C.S.I.

Major S. Anderson has been appointed to officiate as Civil Surgeon at Purnea. Major F. N. Windsor has been granted leave of absence combined with furlough home from India for 18 months. Major R. H. Price has been appointed Specialist in Advanced Operative Surgery. Major W. Coppinger has been temporarily transferred from Bengal to officiate as Civil Surgeon at Dibrugarh, in succession to Major J. A. Leventon, granted furlough home from India.

Captain L. Cook, at present employed on plague prevention duty under the Sanitary Commissioner in Bihar and Orissa, has been appointed to officiate as Civil Surgeon at Champaran, in succession to Major J. J. Urwin, granted furlough. Captain H. Dutton has been temporarily transferred to Delhi for duty. Captain R. Kelsall, civil surgeon at Thayetmyo, has been granted leave of absence, combined with furlough home from India, for 18 months. Captain N. Sodhi has been transferred to Gurgaon as Plague Medical Officer. The services of Captain W. P. G. Williams, officiating superintendent of the Central Prison at Bareilly, have been replaced at the disposal of the Home Department of the Government of India. Captain J. W. H. Babington has been appointed Specialist in Ophthalmology. Captain H. Hallilay has been appointed to Murree Cantonment as Civil Surgeon. Captain H. Emslie Smith, on return from leave of absence, has been appointed to officiate as Civil Surgeon of the Second Class at Mymensingh during the absence of Captain G. P. Goil. Captain J. F. James, officiating civil surgeon at Sibsagar, has been transferred to the Central Research Institute at Kasauli Cantonment for special duty.

SPECIAL RESERVE OF OFFICERS.

Royal Army Medical Corps.

Lieutenant Charles S. Sandeman to be Captain (dated June 17th, 1913).

The undermentioned to be Lieutenants (on probation):—Arthur Patrick Kennedy (dated June 6th, 1913). Cadet Corporal William Bird, from the Edinburgh University Contingent, Officers Training Corps (dated June 19th, 1913). Lieutenant Philip S. Vickerman resigns his commission (dated July 5th, 1913).

TERRITORIAL FORCE.

Royal Army Medical Corps.

6th London Field Ambulance, Royal Army Medical Corps: Lieutenant Joseph Ernest Ryan, from the South-Eastern Mounted Brigade Field Ambulance, Royal Army Medical Corps, to be Lieutenant (dated June 1st, 1913).

1st London (City of London) General Hospital, Royal Army Medical Corps: Robert James William Oswald (late Captain, List of Officers attached to units other than Medical Units, Royal Army Medical Corps) to be Captain in the permanent personnel (dated May 22nd, 1913).

Attached to Units other than Medical Units.—Lieutenant William J. Gray to be Captain (dated July 1st, 1913). Lieutenant C. P. Lapage to be Captain, Manchester University Officers Training Corps.

For attachment to Units other than Medical Units.—Joseph Wilkie Scott to be Lieutenant (dated May 19th, 1913). Alfred Thomas Griffiths (late Surgeon-Lieutenant, 1st Volunteer Battalion, Duke of Wellington's (West Riding) Regiment) to be Captain (dated July 5th, 1913).

JOURNAL OF THE ROYAL ARMY MEDICAL CORPS.

In the July issue of this journal, which commences Vol. XXI., Colonel R. J. S. Simpson, C.M.G., has a long communication on Soldier's Heart, in which he points out that the term is a false one, inasmuch as the condition is not peculiar to the soldier, nor due to his training or duties; that the causes of the symptom complex are various and perhaps in the majority of cases secondary; that the importance of the symptoms is exaggerated; that the only specific treatment giving good results is graduated exercise; that many cases invalided as V.D.H. have no cardiac lesion; that the true incidence of all forms of heart disease in the army is obscured, and the apparent incidence exaggerated by the inclusion of cases diagnosed on isolated symptoms; and that the systematic examination of every recruit immediately on his joining a station would eliminate a good many cases which cannot be detected under ordinary conditions of recruiting. A brief note on the Coming of the Aeroplane, by Captain H. R. Cordner, affords much matter for reflection and imaginative anticipation. "Aviation having come to stay," as he says, it is, of course, quite natural to ask what part the flying machine will take in the medical arrangements for future wars. He instances the fact that already an officer has flown from Larkhill to Bulford to ask for a medical officer to treat an accident case, and that last year in France an aeroplane piloted by a medical officer flying rapidly over the country was able to distinguish with ease the wounded lying about and to report their whereabouts to the search parties slowly crawling over the ground. These facts forecast possibilities which were undreamed of a few years ago except perhaps by romance writers, but Captain Cordner shows that the use of the aeroplane in war may be even further extended. He points out that the present lorries returning from the front can carry about four lying-down cases each, while aeroplanes already exist which, with little alteration, could carry two. In the same issue of the journal there is a further instalment of Major S. L. Cummins's Parkes Memorial Prize Essay on the Typhoid Carrier State and Prevention of Enteric Fever, and Major B. W. Longhurst has a clinical note on a case of Addison's Disease, a rare condition in military practice.

BRITISH SURGEONS IN THE BALKAN STRUGGLE.

The Servian Government is prepared to make definite arrangements with British surgeons who are willing to offer their services. Railway fare and luggage expenses will be paid to and from the seat of war, also board and lodging will be provided. A salary will be paid at the rate of 600 francs (about £24) a month. Applications should be made at once to the Servian Legation, 40, Pont-street, S.W.

OXFORD OPHTHALMOLOGICAL CONGRESS, 1913.—As already announced in THE LANCET, this Congress will be held at Keble College, Oxford, on Thursday, July 17th, and Friday, July 18th next. Addresses will be given by Professor Emil von Grósz, Dr. John O. McReynolds, Dr. J. Igersheimer, Lieutenant-Colonel R. H. Elliot, Dr. J. Mawas, Dr. Franz Deutschmann, Mr. N. C. Ridley, Dr. T. Harrison Butler, and Dr. F. W. Edridge-Green. Interesting cases will be exhibited and operations demonstrated at the Eye Hospital on the afternoon of July 17th. The official dinner of the congress will take place in Keble Hall at 7.30 P.M. on July 17th, when the chair will be taken by Professor Sir William Osler. Speeches will be limited on this occasion to five minutes. Those who intend to be present are requested to notify the honorary secretary, Mr. Sydney Stephenson, 33, Welbeck-street, W. A discussion on the Present Position of Ophthalmology will be opened by the Master of the Congress, Mr. R. W. Doyne, at 2.30 P.M. on July 18th, at the Eye Hospital. After the discussion tea will be taken in the gardens of Worcester College. Guests (ladies and gentlemen) will be received by Surgeon-General Sir A. F. Bradshaw, K.C.B., and Lady Bradshaw. On the evening of July 18th a smoking concert will be held in the Junior Common Room at Keble College, when ladies will be welcomed. A steam launch will leave Folly Bridge, Oxford, for Reading and Henley on the morning of July 19th. It is also hoped to arrange a golf competition on July 19th.

Correspondence.

"Audi alteram partem."

MEDICAL MUSEUM OF THE INTERNATIONAL MEDICAL CONGRESS.

To the Editor of THE LANCET.

SIR,—There is some danger that the splendour of the historical museum which Mr. Wellcome has organised in connexion with the Section of "History of Medicine" of the forthcoming International Congress of Medicine may overshadow the very important medical museum which is to form an intrinsic part of the Congress. Last year a committee was appointed, of which I have the honour of being chairman, to make all the necessary arrangements for a large medical museum to be housed in the Imperial College of Science and Technology. According to the plan adopted by the committee, the museum is to be arranged in divisions, each section of the Congress having a division set aside for it. The museum should thus cover the whole field of medicine.

The heavy task of organising this museum has fallen chiefly on the honorary secretary of the committee, Mr. H. W. Armit, and it is in order that his task may be made somewhat easier that I venture to appeal to your readers, both at home and abroad. All exhibits should arrive at the Imperial College of Science and Technology, South Kensington, London, S.W., between July 25th and August 2nd. The museum must be ready by August 6th. Any specimen which is to be used at the various sections of the Congress or which illustrates any new medical discovery or observation will be welcome. No exhibit of a commercial nature will be accepted. Ample accommodation is to be provided for formal and informal demonstrations in the museum, so that exhibitors will have opportunities for showing their specimens in the museum as well as at the sectional meetings of the Congress. The museum committee has covered all risks to the exhibitors by insurance. It will be evident that the organisation of so large a museum is only possible if the specimens are received in good time and in a condition suitable for immediate exhibition.

A large number of most interesting exhibits are already promised. There will be a very full representation of the progress of our knowledge relating to the early stages in the development of the human ovum, and Mr. James Berry is bringing together a very complete exemplification of the pathological forms of aneurysm. Tumours of the pituitary, tumours of the breasts and nipples, orthopædic methods, hæmorrhage from the placental site are only a few instances of the special series which are being arranged and for the completion of which further additions would be welcome. Radiology is to occupy a prominent position. A special section of the museum—organised under the auspices of the International Association of Medical Museums—is to illustrate recent improvements in the methods of preserving and exhibiting museum specimens.

Mr. Armit has already prepared a large part of the descriptive catalogue of the museum; it is necessary that exhibitors should supply him now with particulars of the specimens they intend to show. Certain exhibitions now being held have unfortunately deprived the committee of assistance from the Royal Army Medical College and from the various Schools of Tropical Medicine. Material dealing with plague, leishmaniasis, papataci fever, &c., would be gladly received. Pharmacologists who have carried out experimental or clinical researches on the actions of narcotics and sedatives are invited to send illustrative exhibits.

All applications for exhibition space should be made as soon as possible to the honorary secretary, Mr. H. W. Armit, Revenhurst, Talbot-road, Wembley.

I am, Sir, yours faithfully,

A. KEITH.

Royal College of Surgeons, London, W.C., July 7th, 1913.

ETHERINGTON-SMITH MEMORIAL.

To the Editor of THE LANCET.

SIR,—Will you kindly make known to your readers that the subscriptions which have been received and promised for the Etherington-Smith Memorial, including the sum collected by the Leander Club, amount to a little over £1200. This sum will probably be sufficient to carry out the structural alterations required to provide the memorial, which is to take the form of special sick quarters for the medical and resident staff, but will not supply any permanent endowment.

We desire, through you, to thank those of your readers who have already subscribed and to make an earnest appeal to all who knew Etherington-Smith and have not yet done so to subscribe as liberally as they can to this fund.

Subscriptions should be sent to the honorary treasurer, Dr. T. W. Shore, Dean's Office, St. Bartholomew's Hospital, E.C.

We are, Sir, yours faithfully,

ANTHONY A. BOWLBY, C.M.G.,
Senior Surgeon to St. Bartholomew's Hospital.
W. B. CLOSE, C.U.B.C.
G. ACTON DAVIS,
Acting Treasurer to St. Bartholomew's Hospital.
J. H. GIBBON, C.U.B.C.
W. P. HERRINGHAM,
Senior Physician to St. Bartholomew's Hospital.
R. C. LEHMANN, C.U.B.C.
HOWARD MARSH,
Professor of Surgery, Cambridge University.
S. D. MUTTLEBURY, C.U.B.C.
GUY NICKALLS, O.U.B.C.
G. D. ROWE, O.U.B.C.
H. T. STEWARD, Leander Club.

St. Bartholomew's Hospital, E.C., July 3rd, 1913.

"FORCIBLE EXAMINATIONS": A WARNING.

To the Editor of THE LANCET.

SIR,—In a recent case a medical man was mulct in damages at a county court upon the finding of a jury for having, it was alleged, forcibly examined a woman for an alleged accident. Those who read the case and know anything of this class of work will form their own opinion as to the justice of the verdict, but the fact is that the doctor was ordered to pay some £25 damages, *and* his costs, which I take it would be not less than an equal sum.

Medico-legal examinations are now so frequent that it is well to have a clear understanding as to what is one's position in these matters. It goes without saying that forcibly to examine anyone is an assault, and no one in his senses would be guilty of such an act of folly; but it may be contended that an examination was submitted to under threats, hints of dire consequences which might follow refusal, suggestions of monetary loss if the examination did not take place, and I think there is little doubt that anything which could be held to be a threat would very properly by the courts be construed as duress—i.e., an examination by force—and it is well that medical men should appreciate that to establish duress no actual physical force need be proved.

Quite recently I received a letter from a lawyer in the city, demanding compensation under threat of legal proceedings, for an assault alleged to have been committed by me, the assault in question being the examination of a woman without the presence of her doctor or her friends. This assault, the lawyer stated, "he need hardly say made her suffer in health." As it was alleged to have happened six months prior to the lawyer's letter, presumably the shock had been so great that she was unable even to visit the man of law.

I knew, of course, that no such case existed, and merely handed the matter over to Dr. Bateman of the Medical Defence Union, who, after a good deal of correspondence, extracted from the lawyer and his client the explanation that the lady had mistaken my identity. Later, under pressure (when the tables were turned), an abject apology was obtained from the "assaulted" one by the Medical Defence Union's solicitor.

The object of this letter is to warn my friends who are engaged in medico-legal work to be particularly careful never to examine a patient—especially a woman—without writing

for an appointment and taking the usual precautions which will suggest themselves to anyone who knows human nature.

I am, Sir, yours faithfully,

JOHN COLLIE.

Porchester-terrace, Hyde Park, W., July 7th, 1913.

AN AFFRONT TO PROFESSOR EHRLICH.

To the Editor of THE LANCET.

SIR,—The secretary of the German National Committee, Professor Dr. Posner, of Berlin, has written to me complaining with some bitterness of a notice in the July number of the *Ophthalmoscope* reflecting, as he justly remarks, not only on Professor Ehrlich but on the Kaiser himself. The notice is apparently a translation from a French paper.

I should be obliged if you will allow me the opportunity to express my profound regret, firstly, that any insult should even inadvertently have been offered to Professor Ehrlich; and secondly, that it should have occurred at this particular moment. I am perfectly sure that the editor of the *Ophthalmoscope* would be the last to wish to affront so distinguished a scientist, and I anticipate that at the earliest opportunity he will, in the pages of his own journal, express his regret for the occurrence.

I am, Sir, yours faithfully,

W. P. HERRINGHAM,
Honorary General Secretary of the Seventeenth International Congress of Medicine.

Wimpole-street, W., July 8th, 1913.

A NEW SPIROCHÆTA FOUND IN HUMAN BLOOD.

To the Editor of THE LANCET.

SIR,—Perhaps you will be good enough to allow me to reply to some of the criticisms which have been made on my communication to THE LANCET of June 21st on the above subject. The possibility that these "spirochætæ" were protrusions from the red blood corpuscles or other artefacts was, of course, considered. I decided to call them spirochætæ for the following reasons: (1) It was frequently observed that, in addition to local movements, a "spirochæta" could move across the microscopic field, other bodies being relatively stationary; also that a "spirochæta" could completely alter its position in relation to the red blood corpuscles; (2) some of the thicker forms show a beaded appearance suggesting accumulations of chromatin; (3) V and Y-shaped forms suggesting longitudinal division are frequently met with; (4) in cultures, round, spore-like bodies are to be found attached laterally or to the ends of the "spirochætæ"; (5) they fail to stain with aniline dyes when the red blood corpuscles stain deeply. By the application of a suitable mordant such as tannic or osmic acid they can be successfully stained; when stained they are well defined, with pointed or rounded ends, and often show granules staining like chromatin.

Now it is well known that all these characters are met with in organisms belonging to the spirochæta group.[1] In considering other possibilities as to the nature of these motile filaments it must be remembered that they are found in large numbers in the presence of red blood corpuscles, but when there is no liberation of hæmoglobin, and they cannot therefore be fragments of the framework of broken-down red corpuscles. There are two other possible explanations—(1) that the red blood corpuscles when compressed protrude these filaments; and (2) that two adjoining corpuscles adhere together, and when they separate a filament forms between which subsequently breaks off. Neither of these alternatives seems to completely explain the conditions found.

In conclusion, I would like to state that the only claim I make for my communication of June 21st is that the observations are correct. The inferences drawn from these observations are open to revision, particularly if further information is obtained. The statement in my paper of June 21st that the spirochætæ had not been cultivated on artificial media recognises that there is no complete proof of their parasitic nature. The reasons, however, for calling these bodies spirochætæ are, I venture to think, similar to those which have been brought forward for other well-recognised organisms of this kind. It is a little surprising to hear that these bodies are well known to most bacteriologists, for at the demonstration to the Pathological Section of the Royal Society of Medicine the only suggestion offered as to their nature was that they were fibrin, and no one ventured to recognise them as products of the red blood corpuscles.

I am, Sir, yours faithfully,

The Royal Free Hospital, July 8th, 1913. HELEN CHAMBERS.

[1] Noguchi: The Journal of Experimental Medicine, January, August, and September, 1912.

To the Editor of THE LANCET.

SIR,—I read with interest "A New Spirochæta in Human Blood" by Dr. Helen Chambers, which appeared in THE LANCET of June 21st. As I have observed these bodies in the blood on numerous occasions I should like to refer Dr. Chambers to an article I contributed to the *British Medical Journal* in 1907 entitled "Observations on Fresh Blood Films with Special Reference to Hæmoconia." I do so for this reason, that I believe those so-called spirochætæ are products of the disintegration of the corpuscular elements of the blood. It is significant that Dr. Chambers states "that the spirochætæ are found in large numbers amongst the corpuscles at the bottom." I believe the reason of this is what I have stated, and not "because this is the only part of the fluid where the conditions are suitable for growth." This may be perfectly true in a sense, but I believe Dr. Chambers's deduction is false because of her premise. I do not deny that those bodies may not possess some characteristics similar to spirochætæ, for I am convinced that out of one entity another different entity may develop. I believe that I could demonstrate that a diplococcus evolves from a coccus, a bacterium from a diplococcus. Thus, Friedländer's bacillus is a further growth of a pneumococcus, a cladothrix is a further growth of a bacterium.

The bodies which Dr. Chambers describes I observed originally in urine, and I thought that I had discovered a new organism till I found them in blood and discovered what I believe to be their true significance. There are other bodies—which have also been mistaken for micro-organisms—that are found wherever certain cellular elements are disintegrating—e.g., in lymph, pus, urine, vaccine, &c. In certain anæmias where poikilocytosis is well marked the pointed end is an extrusion from the corpuscle and has the power of movement. This elongates and is finally detached into one of Dr. Chambers's thick form of "spirochæta," and by careful observation this will be found in time to elongate into a finer "spirochæta."

There is one other statement in Dr. Chambers's article which I should like to refer to as I believe it is of some interest. "The number of organisms found fluctuates at different times. In those cases examined six weeks ago the blood contained the organism in large numbers; on many subsequent examinations comparatively few were found." These observations I can corroborate, and on considering the reason of these phenomena I came to the conclusion that when those bodies were most numerous the process of blood disintegration within the vessels was at its height, as I believe that process goes on more or less continuously.

I am, Sir, yours faithfully,

Edinburgh, June 21st, 1913. FREDERICK PORTER.

ANGINA PECTORIS AND HEBERDEN'S CONCEPTION OF IT.

To the Editor of THE LANCET.

SIR,—The death of Dr. G. H. R. Dabbs, attended by pathetic incidents, to which you refer in THE LANCET of June 21st, calls to mind the exactions annually levied upon practitioners of medicine by the angina pectoris of Heberden, and the obligation which lies with every member of the profession to assist in an attempt to penetrate the mysteries which obscure this fatal complaint.

The Jennerian doctrine is losing glamour, and apologies made in its support are ceasing to convince. A tendency exists to revert to the simple conception of Heberden, which regards the angina pectoris as a tetany of the gastro-œsophageal sheet of muscle and as belonging to the order of spasmodic complaints associated with the musculature of the

alimentary canal. Reasons existing in favour of this original view of the angina pectoris are strong. They are not strained, they are merely ordinary deductions from facts, and they suggest themselves to the unprejudiced mind upon the contemplation of anatomical, physiological, pathological, and clinical considerations.

To illustrate this statement, compare the essential features of the angina pectoris with those constituting the syndrome of the gastrismus. The complaints are similar in their grouped symptoms; they are characterised by pain of the referred type and by spasmodic contractions engaging both visceral and somatic layers of muscle. They exhibit algesic signs and are attended by cardiac and circulatory disturbances. Occasionally seizures terminate in death, and the cause of death is either vagal inhibition or cardiac exhaustion following sympathetic acceleration.

The angina pectoris and the gastrismus are not unlike in their etiology. In each of these complaints a habit exists which becomes more marked at certain seasons than at others, and manifests its augmented potency for mischief by an increase in frequency and severity of seizures. The basis of the habit is the presence of foci of irritation at segmentary centres, and this state of central nervous irritation is aggravated by neurasthenia, anæmia, dyspepsia, and exhausting illness. The exciting causes of seizures are the same in both complaints—namely, local irritation, muscular exercise, mental effort, emotional disturbance, strong sensory impressions, and exposure to cold.

The principles of treatment which are successful in their application are alike—namely, rest in accordance with the widest interpretation of this term, dietary, and the reduction of intragastric pressure and of hypertonus of the gastric wall. The necropsial pathology is the same, since no essential lesion is found at the necropsy of the subject of either disorder.

The foregoing remarks apply, but in a lesser extent, to all spasmodic complaints associated with the alimentary canal and to similar complaints affecting sacs which are connected with the alimentary canal in its early stages of development. A striking example is the uterus. In the pregnant female, when abortion is threatened, the same causes which excite a seizure of the angina pectoris are instrumental in precipitating a contractile paroxysm of the uterus—namely, local irritation, muscular exercise, mental effort, emotional disturbance, strong sensory impressions, and exposure to cold. The same predisposing cause is in operation—namely, the presence of foci of irritation at segmentary centres, and this condition of the central nervous system is made manifest in both complaints by algesic symptoms; moreover, in both the activities of the predisposing cause are augmented by neurasthenia, anæmia, dyspepsia, and exhausting illness.

The conditions are alike in main features—namely, simultaneous spasmodic contraction of visceral and somatic layers of muscle accompanied by pain of the referred type. The principles of treatment are the same, consisting of physical, mental, emotional, sensory, and physiological rest, dietary, a warm environment and the reduction of intravisceral pressure and hypertonus of the visceral wall. The pathology is similar—namely, the absence of an essential necropsial pathology.

The resemblance existing between the features of the angina pectoris and those of spasmodic complaints associated with the musculature of the alimentary canal and its developmental appendages is too close to be merely coincidental. It constitutes a family likeness. Hence the truth of Heberden's conception.

We now come to the consideration of certain insuperable obstacles opposed to our acceptance of the Jennerian doctrine. In the course of a series of observations made during the last three years upon 12 persons possessed of the anginal habit, I have given particular attention to pain and algesic symptoms, and I have taken many tracings of the jugular pulse and the radial, during the time of seizures and when seizures were in abeyance.

340 observations have been made with the object of ascertaining the number of zonal regions involved in pain and the extent of it during seizures. In the course of these observations incidences of pain have been noticed in distributory areas of the second, ninth, and intermediate intercostal nerves, and in the distributory area of the brachial plexus. The right side of the chest and the right arm were more frequently affected than corresponding parts on the left side.

In a case presenting the algesic symptoms in a very prominent manner, and consequently favourable for the purpose of investigating the symptom, 140 observations were made. During the course of these observations algesia appeared in patches profusely scattered over the epigastrium and thoracic walls, over ribs and interspaces alike. They were never absent from the front of the sternum. They occupied places over the spinous processes of the lower three cervical vertebræ and over the upper eight dorsal. Strands of the brachial plexus traversing the posterior triangles of the neck proved to be tender on pressure and also the trunks of radial and ulna nerves. Regions on both sides of the body were fairly evenly involved. This wide range of distributory zones involved by algesia indicates the existence of foci of irritation at segmentary sections of the cord, extending from the fifth cervical segment to the eighth thoracic. But of these three segments only—namely, the second, third, and fourth thoracic—are in communication with the heart. This anatomical consideration constitutes a serious obstacle to the acceptance of the Jennerian doctrine.

Time and time again in course of these investigations upon pain and algesia it was noticed that algesia is antecedent to pain. This observation offers a clue to the mysteries of the situation. It furnishes proof that the angina pectoris is a neurosis, and that its predisposing cause is the same as that of the spasmodic disorders—namely, the presence of foci of irritation at segmentary centres. Further, the segments of the cord in touch with the field of pain and algesia are also in direct nerve connexion with corresponding zonal segments of the gastro-œsophageal sheet of muscle, and fresh crops of patches of algesia came under notice after each attack of heartburn, a complaint to which the patient was subject, consequently the inference is justified that foci of irritation at segments of the cord arise from morbid conditions of the alimentary tract and that the pain of the seizure results from hypertonus of gastro-œsophageal muscle.

In 100 instances observations were made upon the heart during seizures. In 62 the pulse was neither quickened nor slowed. In 30 the pulse was quickened, in 18 it was slowed. In 12 instances observations were made during seizures upon the jugular pulse and the radial. In none of these were the essential functions of cardiac muscle found affected. The functions of excitability, contractility, conductivity, tonicity, and stimulus production showed no sign of abnormality. In two cases the presence of ventricular presystoles was noticed, and in six the pulse-rate was accelerated; but these are not signs of intrinsic cardiac affection—they indicate abnormal activities of the great groups of autonomic nerves, and they are often observed in association with gastric disturbances.

Had spasm of the heart been present during the anginal seizures it would have manifested itself in unmistakable fashion in breaches and deflexions of the jugular and radial curves. Had loss of the function of contractility been the cause of the seizure its influence would have been apparent in obliteration of x depressions. But spasm of the heart which fails to kill is unthinkable, and weakness of the myocardium as the essential causal factor of the angina pectoris is equally inadmissible. This statement is confirmed by clinical evidence; cases referred to below are not uncommon. Certain persons on first setting out to walk suffer from seizures, but afterwards find themselves able to continue walking for distances of 10 or 12 miles without experiencing further thoracic disturbance. Dr. James Mackenzie in his Oliver-Sharpey lectures refers to cases of this kind met with by him in his practice.[1] Evidence furnished by this type of case is destructive of the hypothesis of cardiac inefficiency.

Coronary disease, which has been regarded as a chief buttress of the Jennerian doctrine, is not the causal factor. Statistics demonstrate this truth. At age periods when coronary disease is becoming more prevalent year by year, the incidence of the angina pectoris is declining. At age periods when coronary disease is universal death from the angina pectoris is almost unknown. No further refutation of this fallacy is needed.

I am, Sir, yours faithfully,

June 21st, 1913. H. WALTER VERDON, F.R.C.S. Eng.

[1] THE LANCET, April 15th, 1911, p. 988.

UNILATERAL PARALYSIS OF THE RECURRENT LARYNGEAL NERVE.

To the Editor of THE LANCET.

SIR,—My attention has been drawn to the report of my remarks at the May meeting of the Section of Laryngology of the Royal Society of Medicine in the discussion on unilateral paralysis of the recurrent laryngeal nerve. In your report I was credited merely with having remarked on the difficulties of thoracic radiography. The more important part of my contribution to the discussion was the reference to two very singular cases of paralysis of the left vocal cord, which I attributed to alcohol as a toxic agent and in which recovery from the condition ensued. These cases seemed so unusual that I had great doubts about making the diagnosis, but in support of it I take the liberty of quoting an abstract of my description of the cases as published in the *Journal of Laryngology*, vol. xii., p. 540, which has probably been overlooked by collators of such cases owing to an error in the index of the volume.

CASE 1.—A patient consulted me on account of weakness of his voice which came on suddenly at the commencement of a service. The condition persisted. I found complete immobility of the left vocal cord, both in respiration and phonation in the cadaveric position. There were some very limited movements of the cartilage of Santorini. The thorax appeared to be absolutely normal, and it was impossible to elicit any evidence of previous specific infection in spite of the absolute candour of the patient. On inquiring further into his previous ailments I elicited the fact that he had recently suffered from sciatica on the left side, from which he had not yet completely recovered. He was still subject to paroxysms of pain, and there was a considerable degree of anæsthesia of the skin of the affected limb. It seemed to me more than probable that the so-called sciatica was a neuritis, and that the paralysis of the vocal cord depended upon an identical condition affecting the left recurrent laryngeal nerve. It only remained, then, to discover some cause sufficient to account for the production of these neurotic conditions. There were no signs of locomotor ataxy; and I thought of toxic neuritis. There was no indication of lead, mercury, or arsenic; and it was therefore necessary to approach the question of alcohol. There was complete absence of appetite in the morning, and the patient had frequently suffered from disturbances of the liver (acute gastritis); and I observed a singular negligence with regard to his dress, and even the general care of his person, which was quite out of harmony with his professional and social position—in fact, I suspected a tendency to the abuse of alcoholic stimulants. The patient admitted, in fact, that he drank at least a pint of strong stout at each meal, and that in addition he spent the evening up to a late hour in reading and drinking brandy and water. He had not the slightest idea that his excess in alcohol had given rise to his symptoms; but he allowed himself to be convinced, and undertook to make the sacrifice necessary for his recovery—namely, complete abstinence from alcohol. He obtained at the same time a short period of rest from his professional duties, during which he took fairly large doses of tincture of nux vomica. After a rest of some weeks he returned to his duties and found his voice as strong and reliable as before his illness. I was able to assure myself, by laryngoscopy, that the movements of the vocal cord had again become normal. When last seen the voice was excellent, the larynx natural in every respect, and the sciatic symptoms had disappeared. The patient had lost his morning anorexia, he had certainly improved in his general condition, and was able to fulfil his duties without the least difficulty.

CASE 2.—A lady of middle age consulted me on account of an obstinate cough, which fatigued her during the day and prevented her from sleeping at night. Beyond a slight bronchial catarrh I found nothing except a well-marked paralysis of the left vocal cord. During the examination of the chest I observed the cicatrix resulting from the amputation of the right breast, which had been carried out several years before on account of a tumour suspected of being cancerous. Under these circumstances I feared the development of a carcinomatous condition in the mediastinal glands, but beyond the paralysis of the left recurrent nerve there was no other sign of it. There was, further, no indication of syphilis or tuberculosis. I then elicited that the patient complained of well-marked nausea and loss of appetite in the morning, and that she was subject to bilious attacks. I recommended the greatest discretion in regard to alcohol, and wrote to her family medical attendant communicating to him my suspicion that there was a tendency to excess in alcohol, and asking him whether he had any reason to share it. He replied that such an idea had not occurred to him, and that he could hardly believe that the lady, who was well known and respected, could be thus affected. Two weeks later she returned, stating that the morning nausea had considerably diminished, but that she was still troubled with a cough. Her general condition had improved, but the vocal cord was still completely paralysed. The husband, who accompanied her, made the spontaneous inquiry as to whether the use of brandy would be injurious to his wife, because she had acquired the habit of taking frequent doses of it on account of certain cardiac attacks, and that she "poured the spirit into a large glass without measuring it." This confirmation of my suspicion allowed me to speak openly, and I insisted that the daily allowance of stimulants should be limited to two glasses of Marsala. After another fortnight I saw the patient once more. The general condition had greatly improved; the husband assured me that the cough had diminished both by day and by night, and I made out some distinct movements of the left cord of slight extent, but quite unmistakable. On examination at the end of another ten days the movements were still more pronounced, and I ventured to assure the patient that the affection of the larynx did not depend in any way upon malignant disease.

It is a general rule that toxic paralyses are bilateral, hence these cases require all the more careful sifting, and this, I hope, justifies my intrusion upon your space.

I am, Sir, yours faithfully,

London, W., July 7th, 1913. DUNDAS GRANT.

VACCINATION FOR TYPHOID FEVER WITH LIVING SENSITISED BACILLI.

To the Editor of THE LANCET.

SIR,—The subject of sensitised vaccines still attracts much interest. Since my former publications[1] of the results of the inoculation of a series of individuals from a prophylactic standpoint M. Besredka has entrusted to me a further application of his method with the object of fixing the doses from the clinical observations of their reactions. I was able to follow closely the patients injected, for they were confined in an institution during an annual epidemic of typhoid fever.

Researches for specific agglutinins and amboceptors were undertaken in a limited number of cases with a view of seeking any indications that would encourage a complete study. Such, however, did not present themselves. The highest doses gave rise to serum agglutinins at 1/50, one hour at 37° C., the medium doses irregular to 1/20 for the strain employed, aged 20 hours. I did not definitely detect specific amboceptors. Sera were examined three weeks after last injections. M. Jupille kindly worked with me in the examination of the blood, urine, and fæces of most cases, and found no typhoid bacilli therein.

An old typhoid patient and a man vaccinated the week previous for small-pox received 2 c.c. and 4 c.c., with but slight reactions. The ages varied from 18 to 68 years. The vaccine used contained 1000 million to 1 c.c. Twenty-five received 1 c.c. and 2 c.c. five to 14 days' interval. Two only had a local reaction of 10 cm., with headache and malaise two days. To one I gave vaccines of five months old, to one other a vaccine of one year old, with very slight reactions. The bacilli had died after five months. Twelve received 1 c.c. and 3 c.c. Most had local reactions, 10 cm. after second dose. Four had temperature just over 38° C., with headache and malaise two to three days. Two received 1 c.c. and 4 c.c. and 1 c.c. and 5 c.c. respectively. Reactions slight. Seven received 1½ c.c. and 3 c.c. or 4 c.c. Two had marked local reactions of 20 cm., with general reactions lasting two days after first injection, temperature to 38·2° C. highest. One patient after the second dose of 3 c.c. and one after 4 c.c. had similarly marked reactions. Seven received 2 c.c., of which four received a second injection of 4 c.c. All had local reactions, 4 cm. to 30 cm. None but slight general reaction. The second dose given into the gluteal muscle made the part slightly sensitive. No general reaction. One received 1 c.c., 2 c.c., and 4 c.c., with slight reactions. Two received 1½ c.c., 2 c.c., and 4 c.c. Both local reactions 10 cm. after first dose. Slight general reactions after first and second doses. Temperature, highest, 33·1° C. One received the same and 8 c.c., in addition 4 c.c. each side of abdomen. Slight reaction. Temperature 37·6° C. One received 3 c.c., 4 c.c., and 8 c.c., intramuscularly and subcutaneously. Slight local reactions. Malaise and headache 24 to 36 hours after each injection. Temperature, highest, 37·6° C. The cases have been followed closely during seven months.

One may conclude from these observations that there is no danger in this method of vaccination even with high doses, and that the doses recommended of 1 c.c. and 2 c.c. avoid, save in rare exceptions (? hypersensibility), any of the slightly marked reactions which not infrequently follow higher initial doses. The intervals of seven to ten days give rise to less marked reactions than the shorter. A patient should rest 24 hours after a high dose. The third and fourth doses, though higher, gave diminished reactions. I prefer the deep subcutaneous to the intramuscular injections.

Since the two cases treated therapeutically during my earlier series,[2] I have also continued to give the vaccine in treatment, and have seen excellent results, especially in a case that had persisted nine weeks before vaccination. The detailed researches of Ardin-Delteil, Negri and

[1] Comptes Rendus à l'Académie des Sciences, 6 Mai, 1912. THE LANCET, August 24th, 1912, p. 504.

[2] Ibid.

Raynaud,[3] and of Boinet[4] are very interesting in this direction and afford valuable information.

I am, Sir, yours faithfully,

W. BROUGHTON-ALCOCK.

Institut Pasteur, Paris, July 7th, 1913.

THE HONORARY STAFF OF THE MOUNT VERNON HOSPITAL AND THE COMMITTEE OF MANAGEMENT.

To the Editor of THE LANCET.

SIR,—As chairman of the medical board of the Mount Vernon Hospital for Consumption and Diseases of the Chest I am desired by the board to forward to you the enclosed letter with a request that you will be kind enough to publish the same in this week's LANCET.

I am, Sir, yours faithfully,

Harley-street, W., July 9th, 1913. F. W. TUNNICLIFFE.

[ENCLOSURE.]

To the Committee of Management of the Mount Vernon Hospital.

GENTLEMEN,—

We, the undersigned, members of the honorary medical staff of the Mount Vernon Hospital, greatly regret that we feel it our duty to protest strongly against the attitude which for the past few months the committee of management has adopted in reference to the medical board, and its recommendations.

The recent summary dismissal of two physicians from their appointments at Northwood is not only in direct opposition to the recommendation of the medical board, but, as we are advised, is illegal and *ultra vires*.

Another objectionable feature of the conduct of the committee of management towards the medical board was the refusal of the former to accede to the request of the medical board of May 6th, 1913, to hold a joint conference, at which it was the intention of the board to put the above and other questions before the committee of management in an amicable and in no sense contentious spirit, feeling as they did that their correct solution was vital to the interests of the hospital.

In conclusion, we, the undersigned, as a protest against the illegality and injustice of the recent actions of the committee of management, beg to give notice of our intentions to resign our position as honorary medical officers to the hospital on July 20th next, but without prejudice to any steps we may subsequently legally be advised to take, especially with regard to the institution of an inquiry into the management of the hospital. We take this course with the profoundest regret, inasmuch as it involves the severance of our connexion with an institution the interests of which we have had deeply at heart and to which some, indeed many, of us have given a no inconsiderable portion of the best part of our professional lives. (Signed)

HERMANN WEBER.	A. J. WHITING.
CLIFFORD ALLBUTT.	JAMES BERRY.
WATSON CHEYNE.	H. J. SCHARLIEB.
F. W. TUNNICLIFFE.	C. HARRISON ORTON.
ARTHUR LATHAM.	ARNOLD GABRIEL.
F. W. PRICE.	E. D. D. DAVIS.

June 20th, 1913.

To the Editor of THE LANCET.

SIR,—It may not be out of place for me to state that it is owing to my wish to be associated with the resigning members of the consulting and visiting staffs that I am also resigning my appointment at Mount Vernon Hospital, Hampstead. I am, Sir, yours faithfully,

Mount Vernon Hospital, Hampstead, July 9th, 1913. J. W. LINNELL, Medical Superintendent.

A MEDICAL TRADE UNION.

To the Editor of THE LANCET.

SIR,—I note in the excellent reports of your Special Commissioner thrt the demand for a trade union seems to be very frequently touched upon. It is hardly a matter for wonder that those who have to deal with trade unions realise that they can only be met with their own weapons—not violence, which is no legal part of any trade union, but that form of organisation which trade unions alone enjoy. There are sentimental objections which one recognises as honest and widely held, but not by those who are attacked by trade unions in their own practices.

May I be permitted to mention that there is a National Medical Trade Union with offices at 34, Villiers-street, London, W.C., which has already branches in many parts of the kingdom, and which is quite ready to undertake the organisation of branches in parts not at present covered by its operations. Should any of those who have been interviewed by your Commissioner see this, it might be worth their while to communicate with the address given.

I am, Sir, yours faithfully,

GORDON R. WARD.

2, Perham-crescent, West Kensington, W., July 8th, 1913.

[3] Société de Biologie, Feb. 22nd, 1913.
[4] Ibid., April 8th, 1913.

MEDICAL PRACTICE UNDER THE INSURANCE ACT.

(BY OUR SPECIAL COMMISSIONER.)

(*Continued from p. 47.*)

XV.—LIVERPOOL: THE STAND MADE AGAINST THE ACT.

UP to January, 1913, nearly all the practitioners in Liverpool at least professed their eagerness to fight the Act. At first only 14 went on the panel out of 577. This obviously would not suffice for a population that must soon amount to some 800,000 persons. The provisional committee formed in 1912 by the British Medical Association held many meetings to protest against the Act, and displayed generally a good deal of activity. Only about 30 practitioners appeared to have hesitation, or admitted that they were uncertain as to whether or not they would go on the panel. It was calculated that, setting aside certain retired ship surgeons, some qualified medical men practising dentistry, and a certain number of official medical men, there were more than 500 practitioners who might go on the panel, yet of these only 35 had failed to sign the pledge not to serve. When the improved terms were offered resistance did not at once disappear. A meeting of the profession was held, and at this gathering only 12 practitioners present voted in favour of accepting the better offer. But such a decision did not mean very much, for at least half the local members of the profession were absent from the meeting. Another meeting was convoked in Hope Hall to dispel uncertainty as to the situation, and every practitioner in Liverpool was urged to attend. Once again only half the members of the profession were present. Yet this meeting was held at a critical time, that is, just a week before the date when the medical service under the Act came into force. Even at this late hour 236 votes were recorded against working the Act and only 5 in its favour. But simultaneously in London the British Medical Association had decided to hold a meeting in a fortnight's time to consider whether the members of the profession should be relieved from their pledge not to accept service under the Act. This caused a panic in Liverpool. What was the good of holding out and losing their opportunities on the panel if, a fortnight later, they were to be relieved from their pledge? Then, a day or two later, a threat was published that there would be sent down to Liverpool a number of part-time practitioners who would have given to them the right to practise among the wives and families of insured persons at stated rates. This broke down the resistance to the Act. Meetings were held in all parts of the town, and on each occasion reports were received that the number of practitioners yielding was increasing daily. Thereupon the Liverpool Provisional Committee decided, by the somewhat narrow majority of 15 to 12, to adopt the resolution that had already been carried in the Surrey county—i.e., that they could no longer condemn their professional brethren who, under dire financial stress, proposed to go on the panel. Nor was this all. Two members of the Liverpool Committee on their own responsibility sent out a postcard signed with their initials making the above decision of the Provisional Committee known to those practitioners who were specially interested in the matter. This postcard was received on a Sunday morning; and the resolution that had been carried was printed in the papers that were published on the Monday morning. The card, therefore, did not precede the public announcement by many hours, but none

the less the waverers professed to have been greatly influenced by it. And all the time rumour would have it that the Government had a thousand medical men ready to be sent anywhere for the sake of strike-breaking. Further, it was suggested that in Liverpool the Government, regarding the matter solely from the political point of view, might do what it chose, having no seats to lose, for the only Liberal Member for Liverpool is Mr. T. P. O'Connor, and he represents an Irish quarter.

Beginning to Work the Act.

Thus it came about that all resistance to the Act collapsed in the course of a very few days. Resentment was no longer directed against the 14 original supporters of the Act, but rather against the leaders of resistance, who were accused of having led up to a miserable *fiasco*. But there are some practitioners in Liverpool who think that the members of the profession are themselves chiefly to blame. "The organisation was there," said, somewhat excitedly, a leading physician to me; "why did they not use it? They would not take the trouble. Now they shout and say it is all the fault of the leaders; but why did the members let things slide and trust to others to do the work?"

In the meanwhile, the Insurance Committee got to work with a good chairman, who endeavoured to conciliate all parties. Then the profession elected a committee, or rather the executive of the entire profession, consisting of 26 members. Of these, eight are not on the panel, five represent the Association of the Honorary Medical Staff of the Hospitals, one lady represents the Association of Medical Women, and there are 12 panel doctors. This is considered a very representative committee. What the Insurance Committee and the Medical Committee have to control is not yet fully defined. After the first quarter of collecting contributions—that is, on Oct. 29th, 1912—there were in Liverpool 233,000 insured persons, rather less than a third of the entire population. But Liverpool is not divided into areas as in the counties, therefore the entire records must be completed before general estimates and statistics can be given. Thus I was not able to ascertain how many insured persons were still without a medical attendant, but was assured that those who had not yet selected a panel doctor would not have any difficulty in getting accepted, particularly as the majority were very good lives. It was very rare indeed for insured persons to come to the Insurance Committee and complain that the panel doctors had refused to put them on their list. But many insured persons had failed to select a medical attendant and also neglected many other rules that must be carried out. Therefore the Insurance Committee had gone ta the expense of advertising in the papers to urge insured persons not to neglect putting themselves in order according to the Act.

The Act and the Hospital Nurses.

In regard to contracting out, the Liverpool Insurance Committee have expressed willingness to consider individual cases. If, for instance, a person was ill at the time the Act came into force and the medical attendant engaged happened not to be on the panel, they would not ask the patients to change their medical advisers during the course of the illness. Nor would they object to a patient seeing a female practitioner who was not on the panel. Most of the practitioners on whom I called, as also the clerk and secretary of the Insurance Committee, agreed that the personal hostilities prevalent in the earlier phases of the struggle had died out, and that the administration of the Act was working smoothly. Of course there were difficulties, and exceptional agreements had to be accepted to meet them. Thus, for instance, hospital surgeons were allowed on the panel, but only for hospital purposes, and not to attend on the general public. There was, in respect to hospital nurses and attendants, a serious complication if any of them desired to accept some appointment outside Liverpool. If these nurses were under the system at Liverpool of institutions that provided medical attendance before the Act came into force, they would have to make their own arrangements to secure medical advice when they went elsewhere. This would probably entail the loss of a year before they would be again entitled to medical benefits. But if, instead of being attached to one of these special institutions, the nurses are on the list of a panel doctor, then their claims can as easily be transferred to some other locality or town as in the case of a commercial traveller, an actor, and others whose occupations compelled them to change abode constantly. Therefore, at Liverpool, medical men attached to hospitals have been allowed to place their names on the panel for the sake of the nurses and other hospital servants, and yet they are not obliged to do ordinary panel doctor's work. But out of this another complication arises, and this is in regard to the medicine required. Of course, before the Act if a hospital nurse fell ill she obtained from the hospital dispensary the medicine needed. It follows, however, that if the hospital now dispenses medicine it should receive the 1*s.* 6*d.* allowed for that purpose and the house physician or surgeon who attends the nurse should receive the 7*s.* per annum. But, on the other hand, this system entirely destroys the principle of the free choice of doctor so far as the hospital nurse is concerned. It would be rather invidious for a nurse to inform a member of the hospital medical staff under whom she was daily employed that, though he had put his name on the panel solely for the purpose of attending her in sickness, still she would not accept his services. This is the more serious an objection as, unfortunately, members of hospital medical staffs are not always on the best of terms with the hospital nurses and servants, as many of my readers know.

Difficulty of Obtaining Hospital Treatment.

In regard to the Liverpool hospitals, it is becoming more and more difficult to obtain the admission of patients. The financial resources are strained now that the Act has come into force, but the more easy access to medical advice has led to the discovery of a large number of persons in need of operation. Such discoveries will lead in many cases to earlier treatment, and in that way the National Insurance Act will benefit generally the health of the nation, but it puts for the time being a great strain upon hospitals. Several cases were mentioned to me by practitioners in illustration of how difficult it was to gain admission for their patients to the hospitals. A dock labourer, who suffered from an aggravated form of bronchitis and lived in a common lodging-house where the lodgers are not allowed to remain in bed during the daytime, could find no hospital that would take him in. A case of hernia was in similar plight, though the need for operation was, of course, not urgent. The patient ignored the condition which was discovered during an inspection by the panel doctor. A very wretched specimen of poverty with an injured foot was rejected as "too dirty for a general hospital." The situation, it will be seen, is difficult. There is almost need of a recognised hospital for this class of persons. For instance, how can a panel doctor do the best for a very poor insured person who had broken his leg? What ambulance should be employed to remove him? No one quite knows how far the insured person is entitled to avail himself of various benevolent institutions, of ambulances, and other organisations of help to the suffering which were established long before there was any question of compulsory insurance. Some of these poorer classes of insured persons in former days would have been sent to the workhouse infirmaries, and here the friends of such patients were sometimes made to pay, and to pay as much as or more than the 7*s.* allowed by the National Insurance Act. To-day, however, the Poor-law guardians cannot get anything from the insurance funds to compensate the loss of what they used to get from the families of the patients. Thus, at least in Liverpool, an insured person finds it is no longer so easy to obtain admittance even to the workhouse infirmary.

Contracting Out and Malingering.

To return to the question of contracting out, the documents sent out by the Insurance Committee for non-panel doctors to sign puts them in a position that is almost identical to that of a panel doctor, and many have refused to sign. A physician who is not on the panel explained to me that his three servants had contracted out so as to avail themselves of his services should they fall ill. Then there is a young woman who used to come to him as a private patient and pay 2*s.* 6*d.* for advice and medicine. Now this patient is insured, but having contracted out, came to him under this latter system. Therefore, instead of medicine he gave her a prescription. But the panel chemist refuses to dispense this prescription under the Insurance Act schedule for drugs. On the other hand, if the chemist makes ordinary

charges these will entirely wreck the financial basis on which the system is intended to work. Then there is undoubtedly considerable danger that contracting out may encourage malingering. Perhaps, however, I should not actually use the expression "to malinger." "To display softness" was suggested to me as a more correct expression. Both patient and physician are apt to be too soft—the first to think too soon that he is ill, and the second to show too ready a sympathy. Private practitioners who are not on the panel might get a reputation for easily giving certificates and make money at the expense of the insurance funds by encouraging what might verge upon malingering. Of course, this could be checked if the Approved Societies sent some medical officer round to control certificates given by non-panel practitioners, but this must lead to friction, and, indeed, cannot be suggested. The best would be to make no distinction between panel and non-panel doctors. In either case a referee dealing with malingering would be very useful as a protection not merely in regard to the insurance funds but also of the medical practitioner. The latter always stands between two fires—the patient thinks he is too harsh, and the insurance administration is apt to accuse him of being too lenient.

Paying Panel Doctors for Nothing.

That the non-panel doctor is holding his own at Liverpool may be considered established by the fact that not much more than a third of the available practitioners are on the panel, and some of them are coming off. The patients also are in many cases showing their preference for the independent practitioner. Thus, I came across a non-panel doctor who during the day had been consulted by 17 insured persons, from whom, of course, he received the ordinary fees. On the other hand, a friend of his who was a panel doctor remarked that he had hardly seen any patients at all, that he was having an easy time, receiving money from insured persons who, however, did not trouble him when ill. There is a strong impression that some panel doctors have too many insured persons on their list and therefore cannot attend to them properly. The question of limiting the length of the list of insured persons, alluded to in previous articles, has come up at Liverpool. The Insurance Commissioners, it is urged, should establish a limit, not more than 2000, or at the very utmost 2500 on any one list. At Liverpool, however, I was assured there was a practitioner who had a list of 3500, and he had no assistant but a couple of nurses to help him. Another was credited with a list of 4200, but had a partner and an assistant. Such stories, added to others floating about, deter the better class of patients from consulting their panel doctors. When the Government begins to inquire it will be found that some medical men are getting money for nothing, and this because the insured persons inscribed on their list do not consult them when they need medical advice.

This does not occur among the very poor, but among the small trading class and others who have been in the habit of paying the usual fees. They have likewise been accustomed to the attentions of practitioners who are cultivating their practice and striving to win the confidence and affection of their patients. For contract work this is not so necessary and the time needed cannot be spared. The more intelligent patients very soon discriminate between contract and private practice. They will complain more and more, and the Government, when it has time to inspect and to inquire, will find, I was told, that, in any case at Liverpool, the Act is not working satisfactorily among a large and influential class of the community—people of small means, but who are householders, ratepayers, and voters.

(To be continued.)

DONATIONS AND BEQUESTS.—The late Mr. A. King, of Worthing and London, who left property amounting to over £60,000, has directed that on the falling in of several annuities and after the death of his wife his property should revert to Guy's Hospital.—King Edward's Hospital Fund for London has received a contribution of £2000 from the Drapers' Company, being the half-yearly annual subscription of £4000.

MOTORING NOTES.

(FROM A SPECIAL CORRESPONDENT.)

The Darracq Valveless Engines.

A CONSIDERABLE number of medical men have been attracted by a feature of this car—viz., that a hundred separate parts in the poppet valve type of engine are here displaced by a rotary distributor. The car is sold at less than £300, complete with Cape-cart hood, wind screen, head lamps, side lamps, tail lamp, horn, jack, pump, tool outfit, and a fifth wheel with tyre, and if it has a satisfactory engine it should appeal to the medical profession. With a view to answering inquiries about the engine, I not only communicated with various owners of this type of car, but also accepted an offer from Messrs. Darracq and drove one for several days, taking a trip of some 200 miles in it and also utilising it for ordinary professional visiting.

The main points of a car for a doctor may be summed up as follows: simplicity and accessibility in construction, ease in starting, lightness on tyres, cheap up-keep, and low petrol consumption. Most things in this world are, I presume, a compromise; nothing is absolutely perfect, not even a motor car, but from an experience of a part of a week, during which, without any representative of the makers, I used and drove this car, I came to the conclusion that to a great extent it complied with the essential points cited. In this Darracq engine the valves, springs, tappets, and camshaft are replaced by a cylindrical distributor driven by a silent chain from the forward end of the shaft. The distributor is a working fit in a casing cast close to the top of the cylinders. Its section varies from an annular shape between the cylinders to a D section opposite the combustion head ports. This D section permits of a through connexion at the proper time between the inlet gas chamber and the combustion chamber, also of a communication with the exhaust at the scavenging period. An important point is that at the moment of explosion the piston covers the port, so that the distributor is isolated from the combustion chamber at the period of the greatest heat. Excepting these points, the 12-horse power valveless Darracq is built on standard lines. It has four cylinders cast *en bloc*, 75 mm. bore, and 120 mm. stroke. Ignition is by a high-tension Bosch magneto, with variable timing, controlled by a lever on the steering wheel. Cooling is effected by a gilled tube radiator with fan and gear-driven pump. The clutch is of the leather-faced cone type, and the carburettor is a Zenith. The control is by a foot accelerator inter-connected with a lever on the steering wheel. Four forward speeds and a reverse are provided, all controlled by a lever working in a gate quadrant. Lubrication is by pressure to the crank case, and thence by splash. An ordinary bevel drive is employed. The side brake is of the internal expanding type on the rear road wheels, and the foot brake an external band acting on the propeller shaft. Both were found to hold the car easily in either direction on a steep gradient.

I found the car run smoothly. At first she was rather troublesome to start, but after the plug gaps had been set a little nearer I had no trouble on this score. The clutch engaged easily, and the speeds could be changed without any trouble. Hills, unless of a severe character, were mostly negotiated on the third speed, especially after I had acquired the knack of using the advance spark lever. The switch, placed down close to the rug, might be made more accessible. Of course, an important point is, will the distributor wear? May it early fail to make a good gas-tight joint with the cylinder ports? As it is well lubricated, there seems little reason to anticipate trouble in this direction. Another point is that the silent chain drive of the distributor may not prove a success. Experience, however, negatives this.

Concerning Radiators.

Some parts of a car rarely give trouble, as, for instance, a well-designed, well-constructed radiator. Its object, of course, is to cool the circulating water, which is achieved by the difference in temperature of the water flowing through the tubes and that of the air in contact with their exterior surface. The velocity of the circulating water, the velocity of the encountering air, and the extent of surface in contact with that air account for the efficiency of the system. The

honeycomb type of radiator has great merit, but it has one defect—it is costly to make. Some radiators have over 5000 tubes in them, and when they leak they are difficult to repair. The gilled tube radiator, with a tank on top and a tank below, and three or four rows of gilled tubes joining the two, is the most popular type. These tubes are put in the top and bottom plate, sweated in, and then the tanks are built on the top and bottom respectively. Most soldering work is now well done, but as a result of "traumatism," or merely as a consequence of vibration, a tube may leak. I know of no more difficult task than trying to diagnose the position of the leak—except, perhaps, having to repair it, when it is diagnosed. Most men can use a soldering iron, but few, even including whitesmiths, can turn out a good repair of a leaky radiator. Here the expert comes in. But for those who like to try I can give this advice: use ordinary solder and spirit of salt; the latter is better than fluxite for this work, but the one essential thing is cleanliness. It is not always necessary to undo the whole of the bottom tank for one leaky tube. First localise the tube, then cut a hole in the bottom of the tank underneath it, and then, through the hole, do the soldering, afterwards blocking up the hole by soldering on a piece of metal. Should this procedure be found too difficult, I can recommend Messrs. Randall and Co., of Green-street, Paddington, London, and Mr. Jackson, of 9, High-street, Welling, Kent, as reliable coppersmiths who turn out satisfactory repairs both for the ordinary gilled and honeycomb types of radiator.

A Useful Motor Alarm Clock.

Messrs. Brown Brothers, of Great Eastern-street, London, E., have recently placed on the market a novelty in the shape of a motor alarm clock, which should be useful in reminding doctors on their rounds of any special appointment. The holder is angular shaped for fitting to the dashboard, but the clock can be taken out of the holder and used elsewhere. It goes for 30 hours with one winding, and each instrument is accurately tested on a vibration board before being sent out of the factory. At the price (11*s.*) it certainly seems a useful accessory.

Petrol: Vitalisers and Economy.

Of late years many suggestions have been made to improve the power and the mileage to be obtained from petrol by the addition of certain ingredients, such as picric acid or camphor. It is very doubtful whether these additions have any effect save on the mind of the observer. All who drive cars must have noticed that on some days the car will run better and use less petrol than on others, even though neither camphor nor picric acid has been added.

Any direction in which petrol can be economised is of interest whilst the present high price of this commodity obtains. Not a little of the spirit is usually wasted when filling up the average tank. Of the several contrivances on the market designed to obviate this waste—none of which is perfect, so far as my experience goes—the "Empty Quick" of the Atlas Syndicate, 124, High-street, Kensington, best fulfils its object. The device is quite easily fitted into the opening of any size petrol can, no screwing on being required, and a slight twist of the collar on the outlet allows the petrol to flow through a wire gauze filter into the tank. The "Empty Quick," which is made of brass, and costs 10*s.*, should be carried on the car, thus avoiding the necessity of using the funnel of the average garage man, which is, in my opinion, not above suspicion.

The Duco Spring Jack.

In "Motoring Notes" in THE LANCET of April 5th the importance of thorough lubrication of each member of a car spring was pointed out as an essential in maintaining resiliency, and to ensure comfortable travelling. To save the bother of removing and dismantling the springs to introduce a lubricant and thus save wear and squeaky noises, the spring jack has been introduced. It consists of a kind of cramp with two adjustable ends, which are placed on either side of the spring, and when screwed up permit of the removal of dirt and rust, and the introduction of a lubricant.

The Cost of Motoring.

Dr. A. R. G. Pocock, of Beaconsfield, Bucks, sends us the following useful information:—

I append the complete running cost of an 8 h.p. Renault car from December, 1911, to May, 1913, during which time the car covered 12,560 miles. There was no involuntary stop until 12,080 miles had been run, when the block pinion in the back axle sheared as the result of an accident, the cost of replacement and reassembling being £3 10*s.* The Michelin tyres have done more than 8000 miles each without retreading, which is largely due to the use of the Harvey-Frost Vulcaniser. The petrol consumption was 31 miles per gallon. The mechanical repairs include one new ball race, renewal of pinion in back axle, relining side-brakes at 12,080 miles, and rebushing steering radius rod. The engine and gearbox have never been cleaned or adjusted and are still running well.

Running Cost.

	£	s.	d.
Petrol	30	0	0
Tyres	15	15	3
Lubricating oil ...	2	15	0
Grease	0	6	0
Insurance	6	5	0
Licences—Car (one driver)	2	1	6

	£	s.	d.
Mechanical replacements	2	10	6
Back axle (accident)	3	10	0
	63	3	3
Depreciation—20% of cost of car ...	45	0	0
Total ...	108	3	3

The cost of running the car, including depreciation, works out at slightly under 2¼*d.* per mile. Wages are not included, since they would vary in different places.

I should add that I also possess a 13·9 h.p. Renault which has run 23,000 miles, the cost being 5*d.* per mile. It is of interest to note that the cost of running a car exactly twice the horse power is rather more than twice as much.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Appeal for the Royal Infirmary.

THE chairman of the Royal Infirmary has issued another appeal on behalf of the building of the new central branch for accidents and out-patients now in course of erection. Up to July 5th £11,000 have been promised or paid towards the £25,000 needed. It is the ambition of the infirmary authorities to be able to report to His Majesty the King, who is the patron of the Royal Infirmary, that the total sum has been raised for this important outpost of the infirmary, and as a memento of the visit of Their Majesties on the occasion of their visit to the city on July 15th. During the year 1912 nearly 25,000 persons received treatment in temporary buildings in the centre of the city.

Sleeping "Lessons" in Infants' Schools.

Ashton-under-Lyne has ranged itself with Buckinghamshire and has adopted sleeping "lessons" as the latest step in aiding the instruction in the infant classes at its elementary schools. This afternoon nap was advised as a necessary and beneficent aid by a woman inspector from the Board of Education. The educational syllabus has been revised, and half an hour is devoted every afternoon to the easily acquired habit of at least resting, even if the tiny scholars cannot at once fall asleep.

Outbreak of Small-pox at Royton.

An outbreak of small-pox occurred at Royton in the week beginning June 29th. Five cases were removed to the isolation hospital. It is possible that the infection may have been introduced along with raw cotton, of which a considerable quantity is used in the town.

July 7th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

University Degree Congregation.

THIS was held in the Great Hall of the University on July 5th. Mr. Gilbert Barling, the new Vice-Chancellor, referred to the great loss which the University had sustained in the death of Alderman Beale, the first Vice-Chancellor. He called attention to the coming visit of the British Association, and commented upon the fact that Sir Oliver Lodge had been selected by his colleagues of the Association to act as President of the Birmingham meeting. An

unexpected incident in the Vice-Chancellor's speech was the unveiling of a striking portrait of the Chancellor, the Right Hon. Joseph Chamberlain, which had been presented to the University by Mrs. Chamberlain. The Vice-Chancellor recalled that it was by Mr. Chamberlain's interest and exertions that the University was brought into existence, and his enthusiasm rendered it possible for those splendid buildings and equipment to find a place there. In a letter from Mrs. Chamberlain accompanying the portrait was the following :—"I also gave it as a token of my own interest in all that concerns the University, and my earnest hope that future generations will see it develop into all that its founders dreamed of when it was established." The portrait is a copy by W. A. Menzies of a portrait painted by the late Charles W. Furse in 1904 for the Cordwainers' Company. Among the degrees conferred were four Doctors of Medicine and ten Bachelors of Medicine and Bachelors of Surgery.—Mr. Charles A. Leedham-Green, surgeon to the Queen's Hospital, has been appointed joint professor of surgery in place of the late Professor Jordan Lloyd. Mr. Albert Lucas, surgeon to the General Hospital, has been appointed lecturer in general surgery for dental students, to succeed Mr. W. F. Haslam, who was recently made professor of surgery.

New Tuberculosis Centre.

The new Birmingham tuberculosis centre and city analyst's laboratory, which have been established in the building in Broad-street formerly occupied by the Water Department, were officially opened on July 4th by the Lord Mayor (Lieutenant-Colonel Martineau). The tuberculosis centre is on the ground floor, and is divided into wings arranged on either side of a large waiting-hall. Rooms for consultation and tuberculin treatment are provided for both sexes, and there are small dressing boxes in the waiting-halls. Two rooms are reserved for infant consultations. The city analyst's laboratory occupies the whole of the upper floor. New quarters for the tuberculosis work were badly needed as the accommodation hitherto provided was very inadequate, so much has the work grown. The centre will act as the headquarters of the tuberculosis work under the city council. It is intended for the examination and observation of patients and for dispensary treatment, examination of contacts, and for the after-care of cases after sanatorium treatment. It will be also a general information bureau and an educational centre. Both insured and uninsured cases will be treated. At present about 900 patients attend each week, but it is expected that before long 2000 will be in attendance.

July 7th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Annual Report of the Public Health Department of the City of Edinburgh for 1912.

Dr. A. Maxwell Williamson, medical officer of health for the city of Edinburgh, has issued his report for the year 1912. The following is a summary of the statistics for the year under review. The population of the registration area at census was 320,769. The estimated population to the middle of the year (including Craiglockart Poorhouse) was 321,884. The natural increase—i.e., excess of births over deaths—was 1645. The period therefore required to double the population would be 136 years. The area of the city is 11,416 acres, or, excluding the public parks and principal open spaces, approximately 6267 acres. The density of the population is 28·0 persons per acre over the total area. The number of houses inhabited is 71,327 and of unoccupied habitable houses 5284. The ratio of population to occupied houses is 4·51. Marriages registered numbered 2857, and the registered births, corrected for country births, were 6346, giving a birth-rate of 19·71. The deaths, corrected for country deaths, were 4701, a death-rate of 14·60. 702 deaths occurred under one year, or 110 per 1000 births. The death-rate from pulmonary tuberculosis was 1·26 per 1000. Dr. Williamson draws attention to the death-rate of 14·6 per 1000. This figure approximates very closely to that for the previous three years, and is the lowest that has ever been recorded in the city. Forty years ago the death-rate reached 26 per 1000; 20 years ago 20 per 1000, and 12 years ago 18 per 1000; since when there has been a gradual but decided decrease up to the present time. It is also clear that the rate of mortality follows very closely the housing conditions of the people, and it is along these lines that further improvement must be looked for. There is a marked diminution in the number of notifications of infectious disease. The actual number received was 1595 as compared with 1967 during 1911, and 2277, the average for the previous three years. An important development for curtailing the spread of diphtheria was the institution of a regular inspection of contacts by means of examination of throat swabs. This was carried out in nearly 1000 cases, and the report was positive in 5·8 per cent. of them. Isolation was then carried out until complete recovery. The importance of sending as many cases of whooping-cough to hospital as possible (among the poorer classes) is again emphasised. This is not only because of the curative measures adopted there, but also as a means of limiting the spread of this disease, admitedly so fatal to young life. The gradual disappearance of typhoid fever from the city is pointed out. Only 29 cases of the disease were reported, and a considerable proportion of these were imported cases. The value of the voluntary lady health visitors is recognised. There are now nearly 300 engaged in the work. Considerable space is given to describing the changes taking place at the city hospital to allow for expansion to meet the increased demand for accommodation taking place under the National Insurance Act.

Insurance Work in Aberdeen.

Negotiations with regard to special fees for night dispensing have been in progress in Aberdeen, and it has been decided, subject to the approval of the medical profession, that a fee of 3*d.* per prescription should be charged for prescriptions made up from 10 P.M. to 12 o'clock, and a fee of 6*d.* per prescription for prescriptions dispensed between midnight and 8 A.M. It is understood that the chemists are agreeable that the extra fee should come out of the drug fund if the proposal is approved.

Joint Sanatorium Scheme.

On July 4th a meeting was held in Aberdeen County Buildings of representatives of various local authorities for the counties of Aberdeen, Kincardine, Elgin, and Nairn with regard to the erection of the proposed joint sanatorium for the counties named under the National Insurance Act. After discussion a general agreement was come to that it was desirable to combine for the purpose of arranging for a sanatorium. Draft heads of agreement were adjusted, and these will be submitted to the several local authorities.

July 8th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The National Insurance Act: Report of the Conjoint Committee.

THE report of the work of the Conjoint Committee since its formation in June, 1912, has been issued. As regards organisation, Local Medical Committees have been formed in the various administrative areas, and these committees have been recognised as statutory bodies under the Act. An undertaking, binding the signatories not to accept any office under the National Insurance Act or under a Friendly Society without the consent of the medical committee of the area, has been signed by 90 per cent. of the entire profession. The committee has also secured that the medical practitioners nominated for the Insurance Committees by the Insurance Commissioners shall be chosen from lists submitted by the Local Medical Committees. The Conjoint Committee's request that the profession should be represented on the Medical Benefits Inquiry Committee was refused, although two of the largest Friendly Societies were directly represented. A suggestion that the medical benefit might be extended to the six county boroughs in Ireland at the same remuneration as in England, but to include dependents, was placed before the profession in the county boroughs, but everywhere refused. The Medical Benefit Committee has not yet reported to Parliament. The Conjoint Committee relates the story of the "panel" offer for certification, and makes it clear that the offer was not accepted by the committee, but was

referred to local meetings of the profession. A special subcommittee of the Conjoint Committee was appointed to deal with sanatorium benefit, and various matters of detail were satisfactorily settled. In regard to the maternity benefit, the Local Government Board issued a circular to boards of guardians recommending that women in receipt of maternity benefit should not be regarded as "poor persons" for purposes of the Medical Charities Act. Owing also to the protest of the Conjoint Committee, a recommendation of the Insurance Commissioners to the Friendly Societies that the fee to medical men in maternity cases should be fixed at 7*s.* 6*d.* was dropped. It is clear that the Conjoint Committee has performed much useful work for the profession. On only one point—that in relation to the "panel" offer—has the committee been criticised, and most of the criticism on that point has been due to misunderstanding.

The Delegates' Meeting.

There is reason to believe that the meeting of delegates on July 17th will result in the restoration of unity in the profession, and that the Irish Medical Association will again takes its proper place in the professional organisation. The most important motion on the agenda suggests that a representative committee should again be formed, constituted like that of the existing Conjoint Committee, but with the addition of direct representatives of each Local Medical Committee. A warm discussion is expected on the sanatorium benefit owing to the irritation aroused by the recent action of the Insurance Commissioners in delegating to their "medical advisers" the duty of signing preliminary reports. The delegates will be asked to condemn the appointment of these "advisers," and to reaffirm the principle that all certificates should be signed by the medical attendant.

The Sanatorium Benefit in Dublin.

The Commissioners have declared that the signing of preliminary reports for applicants for sanatorium benefit is one of the duties of the "medical advisers" recently appointed, and that the applicant who will not avail himself of the "facilities" thus provided must obtain the certificate at his own expense. Hitherto the Insurance Committee, on the advice of the Commissioners, have paid a fee of 5*s.* for each preliminary report, signed by the applicant's medical attendant. The position taken by the Irish Commission is in direct opposition to the advice given by the Departmental Committee on Tuberculosis, of which committee the Medical Commissioner was a member. In the interim report it is laid down that Insurance Committees should make arrangements with medical practitioners for the early reporting of cases of tuberculosis, and the report repeatedly emphasises the necessity of keeping in close touch with general medical practitioners.

Royal Hospital for Incurables.

The annual meeting of the Royal Hospital for Incurables, Dublin, was held on July 3rd. The hospital at present houses 213 inmates, but plans have been adopted to increase the accommodation to 248. The older part of the hospital buildings will also be reconstructed. The foundation-stone of the extension is to be laid in August by the Lord Lieutenant.

Memorial to Sir Henry R. Swanzy.

A public meeting representative of all classes in Dublin was held on July 3rd, under the presidency of the President of the Royal College of Surgeons, to establish a memorial to the late Sir Henry Swanzy. It was generally felt that the best memorial would be the completion of the Royal Victoria Eye and Ear Hospital, an institution which almost owes its existence to Sir Henry Swanzy's energy and interest. On the executive committee formed to take the necessary steps are the Lord Mayor of Dublin, the Lord Chancellor of Ireland, the President of the Dublin Chamber of Commerce, the President of the Incorporated Law Society, the Provost of Trinity College, the President of the Royal College of Physicians, and the President of the Royal College of Surgeons.

Portrait of Dr. Magee Finny.

Dr. W. E. St. L. Finny has presented to the Royal College of Physicians an oil portrait of Dr. J. Magee Finny, who was President of the College in 1891 and 1892.

Health of Belfast.

According to the report submitted on July 1st by the medical officer of health there is a reduction of 53 over last month in the number of cases notified of infectious diseases. The diminution is most marked in typhoid fever, diphtheria, and scarlet fever. It is, however, curious that scarlet fever —now for some years epidemic in Belfast—is still prevalent in the east division of the city, and especially in the houses of the working classes. This may be due to carelessness in the care of mild cases on the part of parents.

The National Insurance Act.

At the co. Louth assizes on July 2nd an appeal was heard. The father of a girl who was a member of a society and who fell ill and was confined in an asylum, claimed as a "dependent" of his daughter and gained a decree for the amount of her benefits. The society appealed. Under the Act the determination as to who are the dependents rests with the insurance society or committee, and counsel for the society offered to pay the benefits to the girl, but refused to recognise the father as a "dependent." This offer was accepted. The Chief Baron, who heard the appeal, said that, taking the provisions of the Act and rules together, he was of opinion that the case ought to have gone to arbitration, but he presumed that the understanding given regarding payment to the girl would be carried out.

July 8th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Regulations for Midwives.

NEW regulations for registered midwives have recently been issued by the Prussian medical department. The midwife has, according to the regulations, the duty of notifying the district medical officer of health every case of death of a pregnant woman or of a woman in labour. The same holds good for cases of fever of more than 38° C. in childbed or after an abortion; also for cases of ophthalmia neonatorum, of pemphigus, or umbilical suppuration. The midwife is further obliged to notify cases of cholera, diphtheria, puerperal fever, small-pox, dysentery, scarlet fever, enteric fever, erysipelas, and tetanus happening in her residence or in the house of any woman attended by her. She must state if she herself suffers from cancer, gonorrhœa, or if suspicion of syphilis exists either in herself or in any woman examined by her. These new regulations are rather strict and require a good deal of medical knowledge on the part of the midwives which they are scarcely likely to show.

An Obscure Epidemic in Barracks.

An epidemic has broken out in the barracks of an infantry regiment in Osnabrück Province of Hanover, where suddenly many of the soldiers became ill with gastric symptoms, with vomiting, diarrhœa, and great weakness; 300 men were attacked. The hospital arrangements of the city were insufficient for such a sudden outbreak, so that the slighter cases had to stay within the barracks, where rooms were provided for them. Fortunately, the course of the epidemic was not a severe one, and no death has occurred. The cause of the epidemic has not yet been discovered; it was first alleged that the cases were lead poisoning, caused by a defect in the cooking vessels; then poisoning by meat was suggested, and this hypothesis was until recently maintained because an officer who had inspected the kitchen of the barracks and tasted the food had also become ill. But investigations in this direction were without result. Some of the incriminated cattle had been sold to the civil population, too, but no case of poisoning has occurred among them, so that it appears likely that the infection had its source within the military kitchen. The men said that the meat was very good, but that the potatoes were bad. Recently it was announced that paratyphoid bacilli were found in as many as 24 of the cases.

Antivaccinationists Fined.

Two Frankfort medical men known to be opponents of compulsory vaccination were recently fined by a court for contravention of the epidemic laws. One of them, Dr. S.,

had attended a lady who had come from Riga, in Russia, where an epidemic of small-pox existed at the time. Dr. S. and his child became ill with a suspected exanthem, which he believed to be chicken-pox, although his child, which, of course, had never been vaccinated, died after a few days. The other medical man, Dr. B., had attended a patient for small-pox but did not notify the case until the district medical officer of health ordered the patient to be conveyed to the fever hospital, where she died from cardiac weakness. He had also attended Dr. S. during his illness. At the trial the wife of Dr. S. gave evidence that she believed that her husband had contracted small-pox. but that Dr. B. held the opinion that the case was chicken-pox; she had nevertheless taken all the necessary measures for disinfection. The public prosecutor pleaded for a verdict of manslaughter by neglect, but the court only fined the medical men for contravention against the epidemic laws because they had omitted to notify the cases. It was said in the judgment that it had not been proved to the court that the death both of the child of Dr. S. and of the patient of Dr. B. were due to manslaughter by neglect. It is remarkable, and speaks for the efficacy of compulsory vaccination in this country, that no other cases of small-pox have occurred in Frankfort.

July 8th.

ITALY.

(FROM OUR OWN CORRESPONDENT.)

Government Trading in Quinine and Thymol.

THE State manufacture of quinine is in a most flourishing condition. For the year 1911–12 the receipts were £113,000, with a net profit of £36,750, the highest on record. This was mainly due to the large sales to foreign Governments, as the sale of quinine in Italy was sensibly diminished. The profits were transferred to the fund for the prevention of malaria, which on June 30th, 1912, had to its credit a sum of nearly £50,000. This fund furnishes quinine preparations to consumers where they are specially needed, and subsidies of money to districts which have to incur special expenses in combating malaria, and to the Croce Rossa Italiana for the antimalarial campaign in the Pontine Marshes, the Agro Romano, and Sicily. Professor Pieraccini proposed last month in the Chamber that the State should also undertake the manufacture and sale of thymol in view of the importance and extent of ankylostomiasis in Italy. The motion was referred for further consideration.

Secret Maternity.

Apropos the recent founding in France of an institution for "secret maternity," the *Rivista Ospedaliera* points out that such institutions have existed for centuries in Italy. At Leghorn is the Istituto della Gravida Occulta, where pregnant women may be admitted as soon as their condition becomes evident; and at Rome is the Istituto della Celate, where they may be admitted at the sixth month or even earlier. Both at Leghorn and at Rome the women are not obliged to give their names, but must give some reference or place their names and addresses in a sealed envelope, which is only opened in case of death by the civil authority. They are even allowed to keep their faces veiled (hence the name "Celate") on the entrance of the doctors as a further guarantee of secrecy.

The National Congress for Occupational Diseases.

The Fourth National Congress for Occupational Diseases, held in Rome June 8th–11th, was a great success both from the point of view of the numbers attending the Congress and the importance of the subjects discussed. Ankylostomiasis, Diseases of the Blood of Professional Origin, Infantile Mortality in Relation to the Trades and Social Conditions of the Parents, Dermatitis of Professional Origin, and the Professional Pathology of Railway Workers were the five themes set for discussion. Other interesting communications were made on various aspects of lead poisoning and on the study of fatigue. Dr. Ranelletti gave a splendid address in the great hall of the University on the works of Bernardino Ramazzini, the founder of this branch of medical science.

July 2nd.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Medical Inspection of Schools.

WITHIN the last few years the problem of medical influence upon the conditions prevailing in public schools has attained a high degree of prominence in Austria, and one result of the interest taken in the subject is that the Vienna Aerztekammer (Medical Council) have organised an investigation in which medical men and persons occupied in teaching were asked to give their opinions as regards the statutory regulations necessary for a regular medical inspection of schools and the children attending them. At a meeting of persons interested in the problem the three following general questions were submitted: 1. Ought the position of a medical inspector of schools to be a whole-time or a part-time appointment? In the latter case private practice or some other remunerative work must, of course, be allowed to the holder of the appointment. 2. Ought a medical inspector of schools to be appointed by the board of health, and ought he to have authority to take action in any matter of school hygiene, or ought his position to be merely consultative? 3. Which schools should be under the supervision of medical inspectors and which schools could dispense with such supervision? The answers to these questions were given by overwhelming majorities to the following effect. The appointment ought at present to be a part-time one, because there are not enough funds for appointment of whole-time inspectors at an adequate rate of payment. The medical man should be appointed by the board of health, but should have a voice with respect to all matters of hygiene in all classes of schools; the kindergarten schools and the elementary schools, as well as the high schools and those for apprentices and the commercial schools should come under the scope of the law; even the universities should be included, for ill-health among university students was not uncommon. A medical inspector of schools should limit his work strictly to the prophylactic and hygienic supervision of schools and school children, for in the opinion of the large majority of experts the medical treatment of school children ought not to be undertaken by the school medical officer under any condition whatever, so that the private practitioner should not suffer in the least from the scheme. The following points were finally summarised as embodying the principal requisites for a medical service in schools. The hygiene of the schoolrooms, the ventilation, the water-closets, the lighting, the heating, the cleanliness of the pupils and the schools, and the hours of work should be controlled by the inspector. All newcomers amongst the pupils should be carefully examined as regards health. Every few months all pupils should be regularly examined. Defects of the eyes, of the ears, of the respiratory tract (adenoids, tonsils), and of the teeth should be looked for, and the parents should be advised as to the importance of having them corrected. Children suffering from any disease should be excluded from schools, and especial care should be given by the inspector to cases of disease carriers and contacts. The following up of cases of infectious diseases should also be included in the duties of a medical inspection, though for this purpose school nurses should be employed and not medical men. Furthermore, the attention of the medical officer and the teachers should be directed to the prevention of diseases for which school work may be in some degree responsible, such as nervous overstrain, anæmia, and orthopædic defects. Open-air games, open-air classes, and gymnastic exercises should be encouraged and controlled. The treatment of diseases or defects should be left to the family medical adviser, or in the case of the poorer classes the children should be sent to the hospitals; special school clinics would be a very useful addition to the system of medical school inspection. Such clinics were proposed for diseases of the teeth, eyes, ears, nose, throat, and skin. A point raised in the discussion dealt with the question whether examination of a child by the family medical adviser should be a ground of exemption from examination by the school medical officer. This was, however, considered to be inadvisable. Furthermore, the school medical officer should keep general observation on the state of health of the teachers and those occupied otherwise in the schools, and

should also advise as to the choice of occupation, from the point of view of physical fitness, in the case of pupils leaving school. One other interesting point was raised—namely, whether instruction in sexual matters should be included among the duties of the school medical officer. It was agreed that this subject did not belong to his line of work. These general principles were brought to the notice of the Board of Education, which will make use of them in calling into existence the Medical School Service in this country.

Professor von Noorden.

As I have already mentioned in THE LANCET, Professor von Noorden has decided to leave Vienna and return to Frankfort. The main reason for doing so was the desire to be free from the duties of a director of a clinic and of a clinical teacher. In Frankfort he will be able to devote his time to research and also to private practice. Professor von Noorden's departure will be a great loss to scientific medicine in Vienna, for in his clinic over 300 important contributions to the problems of metabolism have been made by his assistants and pupils within the last few years. The splendid clinic and the "metabolism kitchen" were a kind of Mecca for medical men coming from all parts of the world. In the search for a successor overtures are being made to Professor His, of Berlin, whose work on the pathology of the circulation and of the heart is so important. Many of the medical faculty in Vienna, while fully recognising the great position of Professor His, would, however, prefer the appointment of a successor having a reputation in connexion with the subject of metabolism, in order to continue the work inaugurated so successfully by the professor now returning to his old place in Frankfort.

July 7th.

NOTES FROM CHINA.

(FROM OUR OWN CORRESPONDENT.)

North Manchurian Plague Prevention Service.

FOUR fully equipped hospitals are now in working order at the following places: Harbin, Sansing, La-ha-su-su (at the junction of the rivers Amor and Sungari), and at Aigun (opposite Blagovestchensk). The *personnel* of the service comprises two graduates of Cambridge, one of Edinburgh, and four who received their medical education in Peking and Tientsin. Besides these are a number of locally trained hospital attendants and two female Chinese nurses. In the absence of plague the hospitals are being utilised for general cases. The increasing number of sick who come to them for treatment proves that the service is quickly gaining popularity, and augurs well for any future epidemic, since no anti-plague measures can be thoroughly successful without the assistance and concurrence of the people. The confidence of the masses is being further gained by a wise regulation which directs that the medical officer in charge of each station shall give every week a public lecture, illustrated with lantern slides, on the subject of hygiene. On May 1st the staff of the North Manchurian Plague Prevention Service received a valuable addition in Dr. F. E. Reynolds, who came to take up the post of bacteriologist. Dr. Reynolds was recently assistant in the bacteriological laboratory of Edinburgh University, and since has been working in the laboratories of Wassermann and of Bordet.

The Tarabagan and Pneumonic Plague.

Bacteriological and other investigations carried out in Northern Manchuria, Mongolia, and Eastern Siberia during the last two and a half years by the Director of the Plague Prevention Service, Dr. Wu Lien-teh (G. L. Tuck), have led him to form an opinion at variance with the generally accepted theory of the origin of pneumonic plague. Dr. Wu has satisfied himself that the epidemic of 1910 and 1911 did not emanate directly from the tarabagan. In a report shortly to be published Dr. Wu demonstrates that though the tarabagan has been proved experimentally to be susceptible to the disease, yet its connexion with the epidemic was more fancied than real owing to the fact that the endemic areas happened to be localities where the animal was abundant. He brings evidence to show that in a state of nature the marmot is rarely affected. Apart from their scientific value these opinions have great commercial importance, since the trade in tarabagan skins for manufacture into imitation sable is an extensive and lucrative one. On account of the plague tarabagan hunting has been prohibited during the last two years by both the Chinese and Russian Governments.

Opium Smoking.

In spite of the general political unrest the Government is continuing to enforce most stringent measures to stamp out the opium habit. Cultivation of the poppy has ceased in ten out of the 21 provinces. Throughout the country opium shops have been closed, with the result that well-to-do smokers have flocked in large numbers to the foreign settlements at some of the treaty ports, hoping that there they will be able to indulge their craving unmolested. Unfortunately, in many instances they have not been disappointed, for to meet the increased demand extra licences have been granted and new shops have been opened.

The International Opium Conference.

The Chinese Government is sending two representatives to the International Opium Conference, which will open on July 1st at The Hague. One is Dr. Wu Lien-teh, who acted in the same capacity at the Conference that took place during the end of 1911 and beginning of 1912. His colleague is Dr. W. W. Yen, Minister to Germany, who is peculiarly fitted to discuss the subject, since it was he who, together with the British Minister in Peking, drafted the Opium Treaty of May, 1911. The chief duties of the Chinese representatives will be to call attention to the action of the authorities of the foreign settlements in failing to suppress the opium houses under their jurisdiction; also to frame some regulations to govern the transport, distribution, and sale of morphia, cocaine, and allied drugs.

Peking, June 10th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Northern Territory.

Professor H. B. Allen, of Melbourne, has at the request of the Federal Government furnished a report on the health of the Panama Canal Zone, with a view of comparing its conditions with the Northern Territory of Australia and learning what measures may be needed to deal with tropical disease in that region. In his report Professor Allen suggests that a practical survey should be made of all the varieties of the mosquito found in Australia. The Northern Territory covers such an enormous expanse that any positive dicta about its climatic possibilities for a white population may not apply generally. The rainfall varies in parts from 10 to 40 inches per annum, and it is only on the coast belt that really oppressive conditions exist. No serious endemic disease has yet been shown to exist in any part of it.

Brisbane Medical School.

A proposal has been brought before the Queensland Branch of the British Medical Association by Dr. E. S. Jackson affirming the desirability of opening a medical school in connexion with the Brisbane University. When the matter came to the stage of preliminary discussion considerable opposition was manifested by several members in different parts of the State, and the matter was postponed in order that their objections might be more fully heard.

Inebriate Retreats.

In the report of Mr. E. Jones, Inspector-General of Lunacy for Victoria, it is stated that the Lara Retreat for Inebriates treated 127 cases last year, with a daily average of 33. Of these 35 were readmissions. The receipts were £1490, and expenditure £2465. The cost to the State was less than £8 per head for 127 cases. Mr. Jones remarks that among those addicted to drugs cocaine seemed more degrading than opium or alcohol. Dr. H. P. Godfrey, the medical superintendent, points out the urgent need for a second institution more on

reformatory lines, and with less luxury and freedom than Lara, and with a minimum of six to 12 months' detention.

Pure Food Act in Western Australia.

Over 400 formulæ have been deposited with the Public Health Department, including 100 from overseas. A list of proprietary medicines whose contents have been lodged and a separate list of those whose ingredients are on the bottle will be published in the press.

Charge against a Medical Man.

The charge against Mr. Leger Erson of having conspired to defraud the Commonwealth by issuing false certificates under the Maternity Bonus Act was heard in the police-court. Mr. Erson admitted having signed a number of forms in blank but stated he thought they were to be used for cases he had attended. He also admitted there was an agreement with a nurse as to the division of the money. He was committed for trial with the two nurses who are also charged.

Resignation of Dr. B. Burnett Ham.

Some four months ago Dr. Ham, chairman of the Victorian Board of Health, was granted three months' leave of absence to visit England. It is now announced that Dr. Ham has resigned his position and that Mr. E. Robertson has been recommended for the vacant position. Dr. Ham had recently been unable to work in harmony with the Hon. W. Edgar, who is Minister of Public Health, and his resignation was probably influenced by this fact. Dr. Ham was formerly chairman of the Queensland Board of Health and is well known in London.

Insanity in Victoria.

The annual report of the Inspector-General states the number of insane in Victoria under supervision to be 5379, an increase on last year. The ratio to the population is 1 in 246·5 persons. The expenditure on asylum upkeep amounted to £187,391. Reference was recently made to the number of immigrants admitted to asylums. The actual figures given are 62 admissions from 19,667 immigrant arrivals.

Healthy Tasmania.

The annual report of the chief health officer (Dr. J. S. Purdy) is published. The population is 191,211. Tasmania possesses "the greatest relative natural increase of population" in the world. Typhoid fever in Hobart has shown a remarkable diminution since the completion of the sewerage system, and the same is true of some small coast towns. No quarantinable disease was dealt with during the year. The Midwives Act came into force on Jan. 1st, 1912, and 490 women have registered.

Refusal to Prosecute a Medical Man.

Dr. R. H. Cole, the Melbourne city coroner, recently held an inquest on the body of a married woman who died while undergoing operation at the Melbourne Hospital. The evidence showed that the patient had been attended in a confinement by Dr. J. McInerny. The labour was difficult and abnormal, and rupture of the uterus occurred. A second medical man was called, and after consultation the patient was sent to the Melbourne Hospital, where a surgeon attempted to repair the damage, but was unable to complete the operation. After hearing the evidence of the practitioner who was called in consultation, the operating surgeon, and the pathologist, the coroner committed Dr. McInerny for trial on a charge of manslaughter, having first advised him to say nothing at all in his own defence. The Crown law officials, after considering the depositions, declined to prosecute, and entered a *nolle prosequi*. This decision has given much satisfaction to the medical profession generally, and the press has commented adversely on the coroner's procedure, and pointed out that expert obstetric opinion ought to have been called at the inquest.

June 2nd.

UNIVERSITY OF OXFORD.—The following awards have been made:—Theodore Williams scholarships: Human Anatomy, George Perkins; Physiology, J. M. H. Campbell; and Pathology, J. J. Conybeare. Welsh Memorial Prize, W. R. Greenshields.

Obituary.

ALFRED WILLETT, F.R.C.S. ENG.,

CONSULTING SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, ETC.; FORMERLY VICE-PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Mr. Alfred Willett, whose death at his country house in Sussex on June 30th we announced in our last issue, was born at Brighton in 1837. He was the second son of Mr. William Willett, of Brighton, and a grandson of Mr. William Verrall, of Lewes. After studying at St. Bartholomew's Hospital he qualified in the usual way, becoming M.R.C.S. Eng. in 1859 and L.S.A. in the following year. In 1862 he obtained the Fellowship of the Royal College of Surgeons by examination, and in 1866 he began his long and honourable connexion with the surgical staff of St. Bartholomew's Hospital. Early in that year he was elected to the post of assistant surgeon, rendered vacant by the resignation from the active staff of Sir William Lawrence in 1865 and the promotion of Mr. Luther Holden. Fourteen years later Mr. Willett became full surgeon, and he held this post until 1902, when he retired and was appointed consulting surgeon to the hospital. During his 36 years of active duty on the surgical staff he held various posts in the medical school, the most important of which were those of demonstrator of practical surgery, lecturer on surgery, and lecturer on clinical surgery. For many years he was warden of the College.

Although St. Bartholomew's claimed the greater part of his time and interest, Mr. Willett also served other institutions. For many years he was surgeon to Queen Charlotte's Lying-in Hospital, St. Luke's Hospital for Lunatics, the Foundling Hospital, the Evelina Hospital for Sick Children, and the Metropolitan Convalescent Institution. He was also a member of the council and of the Distribution Committee of the King's Hospital Fund and one of the directors of the Royal Sea Bathing Hospital, Margate, while he had been examiner in surgery to the University of Cambridge and the Royal College of Physicians of London before the conjoint scheme was in existence.

In 1887 Mr. Willett was elected to the Council of the Royal College of Surgeons of England, and in 1895 he was re-elected for a further term of eight years. He twice held the office of Vice-President of the College—in 1894 and again in 1897. He was Bradshaw lecturer in 1897, and chose as the subject of his lecture "The Correction of Certain Deformities by Operative Measures on Bones."[1] Until his retirement from the Council in 1902 he took a keen and practical interest in all the affairs of the College. He was for long an active member of the Royal Medical and Chirurgical Society of London, and for a time filled the presidential chair. His surgical writings, at no time numerous, were almost confined to papers on deformities in the Transactions of that society and in the St. Bartholomew's Hospital Reports.

On his retirement from active work at St. Bartholomew's Hospital it was widely felt that a testimonial should be made to Mr. Willett as a mark of the esteem and affection in which he was regarded by his colleagues and pupils. This took the appropriate form of a silver medal (the "Willett medal"), which is now awarded yearly for merit in operative surgery. A gold replica of the medal, which bears an excellent likeness of Mr. Willett, was presented to him. In September, 1902, Mr. Willett was entertained to dinner by many of his former house surgeons and presented with a bust of himself executed by Mr. Hope Pinker.

At that time a former house surgeon of Mr. Willett wrote to THE LANCET: "Everybody who had the privilege of working for Mr. Willett always felt that he was working for a great man. He was always just and always generous. He never tolerated slackness, but although he expected and obtained hard work no one was more ready to give a man credit for that which he did or tried to do." This was, as we

[1] THE LANCET, Dec. 18th, 1897.

know, felt by all those who knew Willett to be a just estimate.

Mr. Willett married in 1867 the only daughter of Sir George Burrows, M.D., F.R.S., physician-in-ordinary to Queen Victoria, and leaves five sons and two daughters. For many years Mr. Willett practised in Wimpole-street, and latterly at 6, Oxford-square, Hyde Park. He retired from practice some years ago and went to reside at Wyndham Croft, Turner's Hill, Sussex, where he spent most of his later years. He lived a somewhat retired life as a country gentleman, but his kindly manner won for him many friends.

A surgical colleague sends the following appreciation: "I am sure that in order to appreciate Alfred Willett fully one must have known him and his work at St. Bartholomew's Hospital, and all who were associated with him there know how the hospital and its school were the pivot on which the whole of his professional life turned.

I remember him first when he was an assistant surgeon and used often to drive himself down in a mail phaeton. He was a tall, erect, and muscular man with keen grey eyes sheltered beneath shaggy eyebrows, and a very firm mouth whose strength was not concealed by a moustache and beard. His walk and movements were suggestive of vigour and muscular power, and it was quite characteristic of him that he usually went up two stairs at a time to the topmost wards of the hospital. His appearance was, indeed, a true index to a character which was as upright and strong as his figure. A more honourable and trustworthy colleague it would have been quite impossible to find, and every one who worked under him was impressed by this simpleness of purpose and the conscientious thoroughness which he brought to bear on all that he undertook.

He was in all respects a first-rate surgeon, and it would not be possible for anyone to exhibit more kindness and consideration or a more scrupulous regard for patients and their welfare than he showed throughout his whole career. As an operator he was thorough rather than brilliant, but he was most bold and resourceful, and in orthopædic surgery and ovariotomy he was seen at his best. He was one of the first surgeons in London to adopt the practice of Lister, and it was in his wards that the well-remembered carbolic sprays were first used at St. Bartholomew's. He was also the first to adopt the practice of wearing a gown at operations, and he has always maintained his interest in the progress of antiseptic surgery. His opinion in difficult cases was most highly appreciated; at the weekly surgical consultations no one's advice carried more weight than his. By nature he was a man of deeds rather than of words, and this prevented him from ever being a really popular teacher. For he was disinclined to speak at length on any subject and was not gifted with a fluent tongue. It thus happened that not everyone discovered the accuracy and extent of his surgical knowledge, and his ability as a surgeon was but little known outside the hospital. Yet there was no man who stood higher in the estimate of his house surgeons, and it is interesting to note that many of those who were his pupils now occupy the most prominent positions in London and provincial hospitals, and one and all of them would assert at this moment that they owed their positions to the character and example of Alfred Willett. But there was another sphere in which he proved invaluable to the medical school, for he was a most excellent man of business and the most useful possible member of councils and committees. He was for many years the treasurer of the school, and was most influential in pushing forward anything that promoted its best interests. He was at all times an ardent supporter of any movement that seemed likely to increase the efficiency of the teaching staff, and was a constant advocate of increasing the number of the teachers as more and more came to be required by the constantly extending curriculum. New lecture theatres and laboratories, a new library and museum, additional facilities for work, and a cricket and football ground for play, all found in him an ardent advocate. And at a time when timid councillors hesitated about incurring the expense of acquiring fresh land for the erection of new out-patient rooms and special departments, he was always on the side of that progress which was so essential to hospital and school alike, and it was a constant source of satisfaction to him that he lived to see the complete success of those new buildings in which he had always been so interested. He was one of the best and truest friends of St. Bartholomew's, and his work for it should never be forgotten."

Mr. Herbert J. Paterson writes: "Few surgeons can have inspired such admiration and respect on the part of their house surgeons as did Mr. Willett. To say that all who had the privilege of working for him loved him and reverenced him is to express inadequately the feeling of his house surgeons towards him. His qualities as a surgeon compelled admiration, and his qualities as a man endeared him to all. As a surgeon he was conspicuous for his power of accurate diagnosis. He was most painstaking in the investigation of his cases, and this, coupled with his long experience, had resulted in a clinical acumen rarely equalled and probably never excelled. He had a remarkable memory, and when a former patient came to see him he could recall the details of his case with an accuracy which was a source of wonder to those around. When confronted with an obscure case he was able to relate almost always some similar case from his clinical storehouse. His diagnosis was rarely wrong. The writer remembers many occasions on which he differed from nearly all his colleagues, and yet subsequent events proved his opinion to be correct. As a man his scrupulous honesty of purpose was apparent in his every action. Invariably to the humblest patient he used to point out the risks and consequences of an operation in a manner which might be more often imitated, and which was a valuable lesson to his house surgeons and dressers. The regard in which he was held by his house surgeons was enhanced by the pains he took to train them for their life's work. Once a week he would stand by for hours helping them to perform operations under his critical eye. Not a few surgeons of to-day owe their success to the lessons learnt from him in this way. More than this, by his example he taught them to be loyal to their colleagues, loyal to their profession, and loyal to themselves. In each of his house surgeons he took a keen personal interest, and their after-careers were watched by him with fatherly interest, and their successes were to him a source of pride and satisfaction. A few months before he resigned his position at St. Bartholomew's the Prince of Wales visited the hospital. It was arranged that at the conclusion of the visit the senior physician and senior surgeon were to be presented to his Royal Highness. Before the conclusion of the proceedings Mr. Willett quietly slipped out unobserved so that his successor should have the honour of the presentation. This kindly action was characteristic of his fine feelings and consideration for others."

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Surgeon-General A. von Vogl, of Munich, an authority on epidemiology and school hygiene.—Dr. R. Dick, *privat-docent* of midwifery and gynæcology in the University of Berne.—Dr. Stanislas Parenski, extraordinary professor of medicine in the University of Cracow.—Dr. Gustav Wilhelm Mehlhausen, surgeon-general, and formerly director of the Charité Hospital, Berlin, a post which he held from 1873 to 1902. He was in his ninetieth year. His published works dealt chiefly with questions of sanitation and public hygiene.—Dr. Seyffert, medical councillor of Arnstadt, from septic poisoning contracted during an operation he was performing.—Dr. W. C. Gilday, lecturer on surgery in the New York Polyclinic Medical School and Hospital.—Dr. Max Kassowitz, extraordinary professor of children's diseases in the University of Vienna, aged 70. He did not enter the profession until somewhat late in life, but he showed remarkable critical and diagnostic ability, so that he was appointed extraordinary professor when he had only been six years qualified. He wrote many valuable works and papers, not only on rickets, on which subject he was a great authority, but also on general biology, metabolism, and immunity.—Dr. Motais, professor of clinical ophthalmology in the Angiers Medical School and corresponding member of the Paris Academy of Medicine.—Dr. Jules Thiriar, formerly professor of clinical surgery in the University of Brussels.—Dr. Hermann Bennecke, *privat-docent* of medicine in the University of Jena.—Dr. G. Wagner, senior physician of the Bayreuth Convalescent Hospital.

THE NATIONAL INSURANCE ACT.

THE ADMINISTRATION OF THE NATIONAL INSURANCE ACT, BEING THE FIRST REPORT OF THE NATIONAL HEALTH INSURANCE JOINT COMMITTEE.

THE first comprehensive report on the administration of Part I. of the National Insurance Act was issued as a Blue-book at the end of last week. The provisions relating to the prevention and cure of disease, to the contributions due for these purposes in respect of insured persons, and to the benefits available for the latter during illness, are all contained in this part of the Act, and the volume gives a full description of the difficulties which have been encountered during the first year's working, and the means which have been adopted to meet them. For the contributions have been received now since July 15th, 1912, while sanatorium benefits have been more or less forthcoming since the same date, and medical benefits since Jan. 15th of this year. Mr. Masterman, in a brief preface to a bulky volume, remarks that the inclusion of details concerning the difficulties in working the Act and the remedies which have been applied may detract from the interest of the report, but this will not be the feeling of many readers. It is exactly the difficulties which have been encountered during the collecting and disbursement of this enormous insurance fund that we want to hear of. The money amounts to nearly £20,000,000, and nearly 14,000,000 persons are brought into insurance by the Act. The report tells the story of the formation of this Fund and of the constitution and work of 236 Insurance Committees which have been constituted under the Act for purposes of administration. It further includes an account of the making of regulations and special orders under the Act in order to meet the case of insured persons working under a variety of particular conditions, and an account, complete as far as possible, of the work carried out by the Approved Societies in the payment of sickness benefit and maternity benefit to their members, and in the performance of other duties under the Act.

Parts I. and II. are respectively general and actuarial, and the appendices to the latter show sufficiently the extreme care with which this side of the scheme has been attended to.

Part III. deals with the National Health Insurance Commission for England, and describes the work in connexion with Approved Societies, the collection of contributions, the administration of sanatoriums and medical benefit, and the control and organisation of the work of the outdoor staff of the Commission. It contains a description of the working of the Act, which justifies the view that there has been no wholesale breakdown of the sort described by party politicians, but in places the accounts are decidedly optimistic. Our Special Commissioner's reports have shown the existence in some centres of difficulties in districts where the official report would suggest to the reader nothing of the sort.

Part IV. deals with the National Health Insurance Commission for Scotland and shows, as our Special Commissioner's reports have done, that the opposition in Scotland during the preliminary period of the Act was confined to certain classes and certain localities.

Part V. deals with the National Health Insurance Commission for Ireland and expresses the general satisfaction of the Commission with the manner in which the Act has been complied with. "They are hopeful," they say, "that a steady continuance of their present policy will have the effect of securing that all persons employed within the meaning of the Act will be insured at an early date." At the same time the report shows that an enormous amount of work remains to be done.

Part VI. deals with the National Health Insurance Commission for Wales.

The report has been compiled, as the Chairman of the National Health Insurance Commission (England), Sir Robert Morant, points out, under exceptional difficulties, and claims to be a statement of administrative facts, devoid of expression of opinion from the authorities. It is a valuable and highly interesting document, with distinctly optimistic views.

AN ASSOCIATION OF NON-PANEL DOCTORS IN LONDON.

At a meeting of the London Medical Committee on July 3rd it was unanimously decided to recommend the formation of an association of non-panel doctors for the county of London, who will accept no service under the Medical Benefit Section of the National Insurance Act unless the following amendments are incorporated in the Act: (1) Free choice of doctor; (2) an income limit; (3) no one section shall have a permanent majority on any Insurance Committee; (4) medical discipline shall be in the hands of the Medical Committee.

To further this object a representative for each borough on the London Medical Committee is asked to convene local meetings. In many parts of London there are already local non-panel societies in existence, and the London Medical Committee will act as the central coördinating body.

In view of complaints that the Act is working detrimentally to the interests of the insured, the London Medical Committee have decided that if there is reasonable ground for complaint the insured person be advised to place his grievance before the Insurance Committee in writing.

Any communications should be addressed to the secretary of the London Medical Committee at 45, Welbeck-street, W.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS OF LONDON AND SURGEONS OF ENGLAND.

—At the Second Professional Examination in Anatomy and Physiology, held on June 26th, 27th, 30th, and July 1st, 81 candidates presented themselves, of whom 47 were approved and 34 were rejected. The following is the list of successful candidates:—

Lalit Mohan Banerji, L.M.S., M.S. Calcutta, Calcutta Medical College and St. Bartholomew's Hospital; Hugh Woodward Barnes, King's College; James Brooks, Manchester University; Johannes Karel Joseph Chambry, Amsterdam University and London Hospital; Dennis Reginald Curnock, Charing Cross Hospital and King's College; Patrick Arthur Dargan, King's College and St. Mary's Hospital; Duncan Constantine de Fonseka, L.M.S. Ceylon, Ceylon Medical College; David Hamilton Derry, St. Bartholomew's Hospital; Kashinath Jaideo Dikshit, Bombay University and London Hospital; James Douglas Dimock, Sheffield University and Middlesex Hospital; El Sayed Disouky, Cairo and King's College; Herbert Mervyn Drake, St. Thomas's Hospital; Gerald Gordon Drummond, St. Thomas's Hospital; David John Evans, University College, Cardiff; Leonard Henry Brittan Evans, B.A. Cantab., Cambridge University and Guy's Hospital; Cyril James Gozney Exley, University College; Zaky Ezzat, Cairo and King's College; Mounir Farag, Cairo and University College; Arthur Alfred Fitch, Liverpool University; Theodore Hamnet Gunewardene, Ceylon Medical College and King's College; Alan Basil Hacking, Middlesex Hospital; William Llewellyn Aplin Harrison, St. Mary's Hospital; Arthur Noel Haworth, Charing Cross Hospital and King's College; Ernest Gwyn Howell, University College, Cardiff; Walter Owen Hughes, Liverpool University; Frederick Nicholas Jayewardene, Ceylon Medical College and Middlesex Hospital; Samuel Henry Mannings Johns, B.A. Cantab., Cambridge University and St. Thomas's Hospital; Claude Stewart James Kearney, St. Bartholomew's Hospital; Louisa Margaret Lister, Bristol University; Mahmood Mahfooz, St. Thomas's Hospital; Bagenal Harvey Mellon, National University of Ireland; Harry Millett, Guy's Hospital; Farid Mohamed, University College; George Edward Mullins, Birmingham University; William Ohlmus, Ceylon Medical College and Middlesex Hospital; Trefor Hughes Rhys, University College, Cardiff; George Cuthbert Robinson, St. Thomas's Hospital; Trevor Cecil Russell, St. Mary's Hospital; Khan Sahib, Bombay University and St. Thomas's Hospital; William Henry Sarra, London Hospital; Paul Robert John Schmidt, University College; William Walford Salisbury Sharpe, St. Mary's Hospital; Nestor Seppings Tirard, St. Mary's Hospital; Robert Ockleston Townend, London Hospital; Arthur Alward Watkinson, Charing Cross Hospital and King's College; Clement John Lethbridge Wells, Middlesex Hospital; and Harold Ernest Pierpoint Yorke, St. Bartholomew's Hospital.

At the quarterly examination in Practical Pharmacy, held on July 3rd and 4th, the following candidates were approved:—

William Stuart Armitage, St. Mary's Hospital; Stephen Leonard Baker, London Hospital and private study; Percy Haycraft Berry, Cambridge University and Guy's Hospital; William Houston Boyd, Belfast; Charles Frank Burton, London Hospital; John Leycester Dudley Buxton, University College Hospital; Ricardo Calvo, St. Thomas's Hospital; Marcus Thomas Gonzalez Clegg, Cambridge University; Geoffrey Francis Cobb, St. Bartholomew's Hospital; Albert Victor Spurgeon Davies, St. Mary's Hospital; Spencer Graeme Dunn, University College and St. Bartholomew's Hospitals; Arthur John Charles Eland, St. Bartholomew's Hospital; John Harold Ewen, St. Mary's Hospital;

George Cranston Fairchild, Cambridge University and St. Bartholomew's Hospital; John Kenneth Garner, Liverpool University; Alfred Noel Garrod, Cambridge University and St. Bartholomew's Hospital; George Cowley Gell, Middlesex Hospital; John Lister Goddard, University College Hospital; James Maurice Harrison, St. Thomas's Hospital; Arthur Noel Haworth, Charing Cross and King's College Hospitals; George Hoffmeister, Middlesex Hospital; Percy Gilbert Horsburgh, St. Bartholomew's Hospital; Alfred Morgan Hughes, Westminster Hospital and King's College; Thomas Glyn James, University College, Cardiff; Harold Dunmore Lane, London Hospital; David Llewellyn Lewis, London Hospital; Leslie Grantham Lunnon, Middlesex Hospital; George Allan Maling, St. Thomas's Hospital; Samuel Mallinick, Halle University and London Hospital; Cecil Granville McClymont, Guy's Hospital; Hugh Morris-Jones, St. Mungo's College, Glasgow; Alfred William North, Birmingham University; Henry Barton Owens, London Hospital; Walter Davies Pearman, Birmingham University and St. Mary's Hospital; Geraint Arthur Pennant, University College, Cardiff; Danwattage Don Philip Perera, Ceylon Medical College and University College Hospital; Earl Leslie Robert, Middlesex Hospital; John Cowan Robertson, Guy's Hospital; Arthur Rodd, University College Hospital; Noel Humphrey Wykeham Saw, Guy's Hospital; Robert Paul Scott-Mason, Middlesex Hospital; Kenneth Eden Shellshear, St. Bartholomew's Hospital; Thomas Victor Somerville, London Hospital; Alan Edward Staffurth, Cambridge University and St. Thomas's Hospital; Edward Benjamin Sunderland, University College Hospital; Harold Bourne Taylor, St. Mary's Hospital; Douglas Rhys Thomas, St. Bartholomew's Hospital; Arthur Roland Turtle, London Hospital; Clifford Ward, Leeds University; Philip Pennefather Warren, London Hospital; Francis Eaton Gordon Watson, St. Bartholomew's Hospital; and Henry George Watters, London Hospital.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a meeting of the Royal College of Physicians on July 3rd Licences to practise were conferred upon the following four gentlemen who have passed the requisite examinations and have now complied with the by-laws:—

George Herbert Alabaster, Birmingham University; Percy Haycraft Berry, Guy's Hospital; Michael Joseph Cronin, London Hospital; and Trevor Owen Williams, Liverpool University.

VICTORIA UNIVERSITY OF MANCHESTER.—At examinations held recently the following candidates were successful:—

Ch.M.—G. B. Warburton.

FINAL M.B. AND CH.B.

*F. A. Bearn, *J. G. Bennett, F. C. Bentz, E. S. Brentnall, †Geoffrey Fildes, H. S. Hutchinson, Harold Kempsey, Eugene Leahy, C. G. Lees, F. L. Newton, W. L. Nicholson, Gladys H. Ramsden, T. P. Robertson, John Rothwell, C. M. Stallard, †‡A. V. Stocks, *†‡Percy Stocks, Ernest Talbot, and H. D. Willis.

Obstetrics and Medicine.—Allan Barrett and C. H. Crawshaw.

Obstetrics.—F. S. Charnock, L. S. Daly, and F. K. Tomlinson.

Surgery.—H. W. F. Williams.

Forensic Medicine and Toxicology.—Lily Allan, Ada L. Bentz, W. R. Blore, W. S. Booth, Basil Browning, Frank Chadwick, F. S. Charnock, J. W. Craw, L. S. Daly, N. H. Davison, D. T. Harris (distinction), J. R. Jagger, O. M. de Jong (distinction), Clara A. Lomas, Roderic MacGill, Kamil Maximus, Kate K. May, A. S. Paterson, Gladys H. Ramsden, J. R. B. Russell, Percy Stocks, and E. H. Walker.

* Distinction in Medicine. † Distinction in Surgery. ‡ Second-class honours.

THIRD M.B. AND CH.B. EXAMINATION.

Pharmacology and Therapeutics and Hygiene.—J. C. Bramwell, J. E. Brooks, Robert Chevassut, J. S. Chorlton, A. T. Gibb, Edgar Granger, J. D. Kenyon, H. M. V. Mengershausen, J. F. O'Grady, F. G. Prestwich, John Rigby, W. A. Rogerson, H. H. Stones, Frank Vause, Louis Walton, and Richard Willan.

FIRST M.B. AND CH.B. EXAMINATION.

Part III. (*Organic Chemistry and Bio-Chemistry*).—F. H. Anderson, Mercy D. Barber, W. T. G. Boul, Frances G. Bullough, C. F. J. Carruthers, C. G. Carson, James Charnley, B. W. Conway, Ruth E. Conway, A. M. Cotes, J. C. T. Fiddes, E. W. Fish, J. B. Higgins, Alice M. A. Holt, Norman Kletz, E. N. P. Martland, F. H. Moor, R. S. Paterson, A. B. Platt, Alice Reid, Jacob Shlosberg, Harry Taylor, Henry Tomlinson, and Francis White.

DIPLOMA IN PSYCHOLOGICAL MEDICINE.

Part I.—R. M. Stewart.

Part II.—Edwin Montgomery.

DEGREE OF B.SC. IN PUBLIC HEALTH.

Rupert Briercliffe and C. Y. Wong.

DIPLOMA IN DENTISTRY. (FINAL EXAMINATION.)

Arthur Aldred, Harry Broughton, H. A. Caldwell, Robert Ramsbottom, W. J. Slater, Ernest Ward, E. A. Watson, and Douglas Wood.

UNIVERSITY OF LEEDS.—The following degrees were conferred on July 5th:—

M.B. AND CH.B.

F. H. Kitson, H. P. Shackleton, and H. Sinson (second-class honours).

FINAL M.B. AND CH.B. EXAMINATION.

Part II. (*Forensic Medicine and Public Health*).—L. H. Butler, J. C. Gillies, H. L. Taylor, and J. Wright.

Part I. (*Pathology and Bacteriology*).—D. A. P. Clarke, H. Foxton, A. S. Hebblethwaite, and J. Wilkinson.

SECOND M.B. AND CH.B. EXAMINATION.

Part I. (*Anatomy and Physiology*).—Miriam Hutchinson and W. L. Ingham.

FIRST M.B. AND CH.B. EXAMINATION (CHEMISTRY AND PHYSICS, AND BIOLOGY).

Part I. and II.—S. Adler, H. E. Charles, H. V. Horsfall, G. H. Hurst, L. Moses, J. H. Parker, N. Pick, L. G. Rimmington, W. H. Rowden, P. Shillito, and C. H. Smith.

Part I. only.—E. E. V. Glover.

Part II. only.—R. Graham, C. R. Watson, and C. M. Woodcock.

DIPLOMA IN PUBLIC HEALTH EXAMINATION.

W. C. Lyons.

FINAL L.D.S. EXAMINATION.

Part II. (*carrying Diploma*).—H. P. Shoesmith.

Part I.—J. E. Gill.

UNIVERSITY OF ABERDEEN.—At the graduation ceremony on July 8th the honorary degree of Doctor of Laws (LL.D.) was conferred upon Dr. David White Finlay and Dr. Ronald Campbell Macfie. Among the ordinary degrees the following were awarded:—

Degree of Doctor of Medicine (*M.D.*).—James Leslie Gordon (under old regulations), William Knox Irwin, John Inkster, James Alex. Macdonald Clark, Clarence Edward Greeson, Robert William Macpherson, and George Christie Soutter.

Degree of Master of Surgery (*Ch.M.*).—Francis Wilson Stuart.

Degrees of Bachelor of Medicine (*M.B.*) *and Bachelor of Surgery* (*Ch.B.*).—Alexander Lindsay Aymer, Hamish Douglas Ferguson Brand, William Hugh Brodie, Francis Frederick Brown, James Thomson Cameron, Francis Julian Richmond Cowie, William Ignatius Escoffery, Winniefred Margaret Gray, James Murray McLaggan, George Pirie, George Riddoch, Frederick Ritchie, and Robert Simpson Snowie.

Diploma in Public Health.—Alexander Middleton Brown, M.B., Elizabeth Mary Edwards, M.B., William Anderson Mearns, M.A., M.B., Robert William Skinner Murray, M.B., Robert Richards, M.B., and John Ritchie, M.D.

The John Murray Medal and Scholarship (to the most distinguished graduate (M.B.) of 1913) was awarded to Dr. George Riddoch, and the George Thompson Fellowship to Dr. Martin M. Cruickshank.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Alfred Doenitz and Dr. Eugen Joseph, *privat-docenten* of surgery, have been granted the title of Professor. A similar mark of distinction has been conferred by the university on Dr. L. Külz, Imperial Colonial Medical Officer in the Cameroons.—*Brussels:* Dr. Gengou, Professeur Agrégé, has been promoted to the chair of Hygiene, in succession to Dr. De Smet, retired.—*Buenos Aires:* Dr. Enrique Zárate has been appointed to the chair of Clinical Gynæcology, in succession to Dr. Eliseo V. Cantón, who is retiring; Dr. Osvaldo L. Bottáro has been appointed Assistant Professor of the same subject; and Dr. Joaquin Llambias has been appointed Director of the Post-mortem Department of the Hospital of San Roque.—*Dresden:* Dr. Geipel, prosector in the Johannstadt Hospital, has been granted the title of Professor.—*Geneva:* Dr. F. Batelli, *privat-docent*, has been appointed to the chair of Physiology, in succession to Dr. Prevost, retired.—*Göttingen:* Dr. Lichtwitz, *privat-docent* of medicine, has been granted the title of Professor.—*Greifswald:* Dr. Franz Cohn, *privat-docent* of gynæcology, and Dr. Georg Schöne, *privat-docent* of surgery, have been granted the title of Professor.—*Halle:* Dr. Ernst Siefert, *privat-docent* of forensic medicine, has been granted the title of Professor.—*Königsberg:* Dr. Otto Riesser has been recognised as *privat-docent* of Medical Chemistry, and Dr. Walter Benthin as *privat-docent* of Midwifery and Gynæcology.—*Leipsic:* Dr. Walter Kruse, professor in Bonn, has been offered the chair of Hygiene, in succession to Dr. Franz Hofmann, who is retiring; and Dr. Versé, prosector in the University Pathological Institute, has been appointed Extraordinary Professor.—*Madrid:* Dr. Cardenal has been appointed to the chair of Clinical Surgery.—*Münster:* The funds for the establishment of a medical faculty have now been obtained by a Parliamentary grant of £25,000.—*New York* (*Polyclinic Medical School and Hospital*): Dr. A. Sturmdorf has been appointed to the chair of Gynæcology.—*Paris:* The number of medical students in France is now 7374 French and 1330 foreign students. In the year 1895 there were 7779 French and 1137 foreign. From that time, however, both classes diminished in numbers for about 10 years, the figures given for 1905 being respectively 6763 and 613, since which time there has been a gradual increase. By far the largest number of foreign students come from Russia. Of the 1330 foreigners during the current year, 861 are Russians, 87 Turks, 67 Bulgarians, and 59 Roumanians. Of course, Paris is by far the largest medical school, having 4209 students. Lyons, however, has more than 1000, and Montpellier and Bordeaux nearly 700 each. Most of the so-called preparatory schools have under 50 students, Grenoble, the smallest, being credited with 20.—*Parma:*

Dr. Angelo Baaga has been recognised as *privat-docent* of Internal Pathology; and Dr. Gerolamo Clerici-Bagozzi as *privat-docent* of Surgery and Operative Medicine.—*Pisa:* Dr. Ettore Battini has been recognised as *privat-docent* of Midwifery and Gynæcology.—*Rome:* Dr. Francesco Oliviera has been recognised as *privat-docent* of Internal Pathology; Dr. Enrico Modigliani as *privat-docent* of Pædiatry; Dr. F. Muzumeci Grasso as *privat-docent* of Genito-urinary Diseases; and Dr. Armando Gianuzi and Dr. Luigi Guidi as *privat-docenten* of External Pathology.—*Sienna:* Dr. Valentino Sebastiani has been recognised as *privat-docent* of Internal Pathology.—*Vienna:* Several changes are to be made in the University Clinics. The "Third" Medical Clinic (Professor Ortner's) will be given up, Dr. Ortner taking the "Second" (known as Neusser's). The "Fourth" (Dr. Chvostek's) will now be the "Third." The new Surgical Clinic will be in the hands of Dr. Hochenegg and Freiherr von Eiseberg.—*Würzburg:* Dr. J. Köllner has been recognised as *privat-docent* of Ophthalmology.

CENTRAL MIDWIVES BOARD.—A special meeting of the Central Midwives Board was held on July 3rd at Caxton House, Westminster, with Sir Francis H. Champneys in the chair. The Board considered the following charges, amongst others, against the midwives whose names are given below, and ordered them to be struck off the Roll:—Joanna Bolt, that she was not scrupulously clean, as required by Rule E. 1; that she did not wear a clean dress of washable material when attending her patients, as required by Rule E. 1; and that in spite of warnings she did not possess the appliances and antiseptics required by Rule E. 2. Mary Elizabeth Davey, that she followed a trade which was not compatible with the scrupulous cleanliness required in a midwife by Rule E. 1; that she did not wear a clean dress of washable material when attending her patients, as required by Rule E. 1; and that she did not take the temperature or pulse of her patients, as required by Rule E. 13. Jane Ellacott, that she neglected to observe the antiseptic precautions required by Rules E. 3 and 7; that, a medical practitioner having been sent for, she omitted to notify the fact to the local supervising authority as required by Rule E. 21, and that she had no proper bag of appliances as required by Rule E. 2. Rebecca Howarth, that being in attendance as a midwife at a confinement, the child suffering from inflammation of, and discharge from, the eyes, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E. 20 (5), and she failed to record in her register the administration of a drug other than a simple aperient, as required by Rule E. 18. Diana Jones, that she neglected to take the temperature of the patient; that, a medical practitioner having been sent for, she failed to notify the fact to the local supervising authority, as required by Rule E. 21, and that she was ignorant of the use of antiseptics and did not comply with the rules regarding them. Mary Ann Lee, that she was not provided with adequate antiseptics, as required by Rule E. 2, that her appliances were not kept clean, and that she was not able to make use of a clinical thermometer, and was consequently unable to take the temperature of her patients, as required by Rule E. 13. Mary Ann Owen, that she did not possess the appliances prescribed by the rules of the Central Midwives Board, that she was not provided with adequate antiseptics, and that she did not keep her register of cases, as required by Rule E. 23. Martha Palmer, that she visited the patient only twice after the confinement and she did not at any time take the pulse or temperature of the patient, as required by Rule E. 13. Augusta Watts, that being in attendance upon a patient suffering from erysipelas she attended a confinement and continued to attend during the four days following without having undergone disinfection to the satisfaction of the local supervising authority, as required by Rule E. 5. Mary Ann Wood, that having advised medical aid on the day of a confinement she made use of no form for the purpose, as required by Rule E. 21; she neglected to notify the local supervising authority thereof, as required by Rule E. 21; and she failed to take the temperature of the patient, being unable to use a clinical thermometer.

UNIVERSITY OF LONDON: UNIVERSITY COLLEGE.—The following awards have been made:—Epsom scholarship, K. T. K. Wallington; Bucknill scholarship (135 guineas), C. F. C. Cooke. Medical Entrance Exhibitions (55 guineas each), E. Sakoschansky and T. M. Cunnington. Cluff prize, J. A. Binning. The following is the list of gold and silver medallists:—Anatomy—Senior class: First silver medal, J. A. Binning; second silver medal, C. W. Ellison. Junior class: Silver medal, E. Sakoschansky. Physiology—Senior class: Gold medal, J. A. Binning; silver medal, C. W. Ellison. Junior class: Silver medals, E. Sakoschansky and J. H. Woodger. Organic and Applied Chemistry: Silver medal, W. M. A. Rahman. Pharmacology—Junior class: Gold medal, E. Sakoschansky. Hygiene Medical Course: Silver medal, H. A. Fawcett.—A course of ten lectures upon Electrocardiography and Heart Sound Records will be given by Dr. Thomas Lewis at University College Hospital Medical School, at 11 A.M., on Tuesdays and Fridays of each week, commencing Friday, July 25th. The lectures will include anatomical demonstrations of the latest discoveries in the anatomy of the heart, and full and illustrated descriptions of the several disorders of the cardiac mechanism (sinus arrhythmias, extrasystoles, paroxysmal tachycardia, heart-block, auricular fibrillation and alternation). Descriptions and demonstrations of the apparatus used for electrocardiographic purposes, normal heart sounds, heart sounds in mitral stenosis and other clinical conditions, will be given. The lectures are free to all qualified medical men and medical students on presentation of visiting cards. Communications may be made to Mr. L. R. Thomas, secretary to the Medical School.

ROYAL MEDICAL BENEVOLENT FUND.—At the June meeting of the committee 18 cases were considered and grants amounting to £120 voted to 12 of the applicants. The following is an abstract of the cases relieved:—

Widow, aged 55, of M.R.C.S., L.R.C.P. Has supported herself since husband's death nearly 25 years ago, but at present is out of work and is going into a hospital for an operation. Voted £2, and case to be reconsidered after leaving the hospital.—Widow, aged 83, of L.S.A. Has an annuity of £30 and a small allowance from a nephew, but is a confirmed invalid both physically and mentally, and requires help for unavoidable expenses. Voted £5.—Daughter, aged 49, of M.R.C.S. No income and suffers from a chronic complaint which makes occupation impossible. Is practically dependent on this Fund and a sister who can only earn a few shillings a week. Voted £12.—Wife, aged 36, of M.R.C.S., L.R.C.P. Husband used to have a fair practice in London, but broke down in health three years ago, and is now abroad incapacitated and unable to help. No income; slight help from a brother-in-law and takes a boarder; five children, aged 13 to 5. Voted £10.—Widow, aged 32, of M.R.C.S., L.R.C.P. No income, but having been trained as a mental nurse has taken a small house and hopes to obtain resident patients. One son, aged 6. Voted £10.—Daughters, aged 42 and 40, of late M.R.C.S. Ten years ago started a lodging-house at a seaside place, and having had two successive bad seasons are unavoidably in difficulties, which they hope will be temporary. Voted £10.—Widow, aged 48, of L.S.A. No income; is being given lessons in dressmaking by the Guild, and hopes to obtain boarders; four children, aged 19 to 9. Relieved once, £10. Voted £12.—Widow, aged 54, of M.R.C.S. Income very small, and is obliged to live at Margate with an invalid daughter who for more than three years has had to use a spinal carriage. Relieved twice, £10. Voted £5.—Widow, aged 55, of L.R.C.P. Edin. No income; no children; health too feeble for regular occupation. Relieved twice, £20. Voted £12.—Widow, aged 46, of L.R.C.P., L.R.C.S. Edin. No income and suffering from an incurable complaint. Relieved once, £20. Voted £18.—Daughter, aged 68, of late M.R.C.S. Only income about £12 a year, and is confined to bed by a grave spinal disease. Relieved twice, £24. Voted £12.—Widow, aged 65, of M.R.C.S. Practically dependent on letting lodgings, and is not in good health. Relieved eight times, £94. Voted £12.

Contributions may be sent to the honorary treasurer, Dr. Samuel West, 15, Wimpole-street, London, W.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Report on the National Insurance Act.

THE report for 1912-13 on the administration of the National Insurance Act (Health Insurance) has been issued as a Parliamentary Blue-book. It includes the reports of the National Health Insurance Joint Committee and of the English, Scottish, Welsh, and Irish Insurance Commissions respectively. The Blue-book is a voluminous one, extending to 660 pages, and gives a detailed official account of the steps which have been taken to bring the National Insurance Act into operation.

Ireland and Medical Benefit.

It is stated in the Lobby of the House of Commons that the committee which was appointed to inquire into the advisability of extending medical benefit to Ireland will report by a majority in favour of extending it only to the large towns. Those towns are said to be Dublin,

Belfast, Cork, Limerick, Waterford, and Derry. It is also reported that the committee has satisfied itself that the existing dispensary system is adequate to the requirements of the other parts of Ireland. This forecast is quite unofficial.

Education (Scotland) Bill.

The Scottish Standing Committee of the House of Commons has passed the Education (Scotland) Bill. This measure was introduced because of a decision of the Court of Session which laid down that the medical treatment of school children by the school boards was unauthorised under existing Acts of Parliament. It is now proposed to give to school boards the necessary powers to initiate this treatment in Scotland. The Bill is retrospective in its effect and gives statutory authority to the steps which have been already undertaken in this direction. At the instance of Mr. MCKINNON WOOD, the Secretary for Scotland, amendments were introduced into the measure to make it clear that surgical and dental treatment were authorised as well as medical.

Mental Deficiency and Lunacy (Scotland) Bill.

On Tuesday, July 8th, the Scottish Standing Committee of the House of Commons began the consideration of the Mental Deficiency and Lunacy (Scotland) Bill. A long discussion took place on the first clause, which classifies the feeble-minded in a manner similar to the clause in the English Bill. The Secretary for Scotland pointed out that the classification had been made by the Royal College of Physicians, and had been the subject of much consideration. He deprecated any change in it. However, the matter was under discussion when the committee adjourned.

HOUSE OF COMMONS.

WEDNESDAY, JULY 2ND.

Departmental Administration of the National Insurance Act.

Mr. CASSEL asked the Prime Minister whether he had yet had time to consider the suggestion that the department responsible for the administration of the National Insurance Act should not be the Treasury.—Mr. ASQUITH: The matter is receiving attention.

THURSDAY, JULY 3RD.

Confidential Medical Certificates under the National Insurance Act.

Sir HENRY CRAIK asked the Secretary to the Treasury whether he was aware that certain societies had refused to pay sick allowance to insured persons unless the specific nature of the illness was stated in the medical certificate; what security such insured persons had against the publicity which might be given to confidential medical certificates by the travelling agents of the society; and whether the Commissioners could give some protection in such a case, especially to women, upon whose health such a specification of disease may have serious detrimental effects.—Mr. MASTERMAN replied: With regard to the first part of the question, I would refer the honourable Member to the answer I gave on June 24th. With regard to the second and third parts, I have not the slightest doubt that a society would take the severest measures in any case in which one of their agents divulged confidential information of the character referred to, given to him by the insured person, and if any case is brought to their notice the Commissioners will at once communicate with the society concerned.

Sir HENRY CRAIK: Is the right honourable gentleman aware that medical men are often unwilling to give specific information even to patients?—Mr. MASTERMAN: I agree. We are trying to see if that can be met in these special cases.

The National Insurance Act and Medical Men's Assistants.

Mr. KING asked the Secretary to the Treasury whether his attention had been called to cases in which the demand of doctors on the panel to engage a temporary assistant for times when panel work was especially heavy had led to friction and resulted in difficulty in working the National Insurance Act; whether the Insurance Commissioners had power to deal with the right of doctors to engage assistants; and, if so, what action would be taken.—Mr. MASTERMAN said in reply: The answer to the first part of the question is in the negative. Under the Regulations an assistant who is not himself on the panel can only treat insured persons on behalf of his principal when the latter is precluded by urgency of other professional duties, absence from home, or other reasonable cause from giving personal attendance to the insured persons under his care.

Inspectors under the Cruelty to Animals Act.

Mr. GEORGE GREENWOOD asked the Secretary of State for the Home Department whether he could now state the names of the new inspectors appointed by him under the Cruelty to Animals Act, 1876; whether such inspectors were appointed for life or how otherwise; what salaries did they receive; what were their duties; what instructions did they receive with regard to the efficient performance of such duties; and what were the conditions of their appointment.—Mr. MCKENNA answered: I am not yet in a position to announce the appointment of the new inspectors. I have received a large number of applications, and I have been in consultation on the matter with the new Advisory Committee, but I have not yet been able to come to a decision owing to the difficulty of obtaining candidates with the special scientific qualifications required for the work who are not at the same time disqualified by the holding of licences or otherwise.

The Registration of Deaths.

Mr. RUPERT GUINNESS asked the President of the Local Government Board whether he was in a position to state when legislation would be introduced to reform the present system of registration of deaths, and more particularly to render burial impossible without the production to the Registrar of a medical certificate as to the cause of death or a certificate based on the verdict of a coroner's jury.—Mr. BURNS wrote in reply: I cannot promise legislation on this subject, but an alteration which the Registrar-General is about to make, with my approval, in the Instructions to Registrars of Deaths will secure that all deaths not certified by a registered medical practitioner shall be reported to the coroner.

MONDAY, JULY 7TH.

Medical Treatment in the Highlands.

Mr. CATHCART WASON asked the Secretary to the Treasury whether, in view of the pressing needs of the Highlands and Islands for medical, nursing and sanatorium treatment and the recommendations of the committee presided over by Sir John Dewar, and of the fact that these recommendations had been unanimously approved by the Scottish Liberal Members, he would state when he would introduce the Bill which he had promised, especially in view of the fact that it was stated the Bill would be non-controversial.—Mr. MASTERMAN answered: The Bill is already in an advanced state of preparation and will be introduced as soon as the exigencies of Parliamentary time permit. The estimates presented to Parliament include a sum of £10,000 only in respect of the proposed special grant for the purpose of providing for special charges in respect of insured persons pending the setting up of the new machinery. A supplementary note for the balance of the grant will be required when the Bill has received the Royal assent.

TUESDAY, JULY 8TH.

Ejectment of Sick Persons from their Homes.

Mr. MORRELL asked the Secretary to the Treasury whether his attention had been called to the cases that had recently occurred in the industrial dispute in the Midlands, in which women who were lying-in had been ejected from their homes on account of arrears of rent; whether, in view of the danger to life that was thus caused, medical officers had power under Section 68 of the National Insurance Act to prevent such a practice; and, if so, whether he would take steps to call the attention of the Local Insurance Committees of the district to these provisions.—Mr. MASTERMAN replied: My attention has not been called to the cases referred to in the first part of the question. Under Section 68 of the National Insurance Act, where the doctor attending on any insured person in receipt of sickness benefit certifies that the taking of any proceedings to enforce any judgment in ejectment against such person would endanger his or her life, and such certificate has been sent to the Insurance Committee and duly recorded, it is not lawful during any period named in the certificate to enforce any such judgment. If my honourable friend has any reason to believe that this law is being violated in any particular areas I shall be glad if he will communicate with me on the subject.

Medical Certificates under the National Insurance Act.

Captain JESSEL asked the Secretary to the Treasury whether he would consider the advisability of making regulations for the purposes of the National Insurance Act that medical certificates of incapacity be given by the doctors on the first day of incapacity, and should not be ante-dated.—Mr. MASTERMAN wrote in reply: A model form of initial medical certificate will shortly be issued by the Commissioners, who realise the importance of so drafting it that the society will know whether the doctor has examined the patient on the date for which he certifies him to be incapable of work.

WEDNESDAY, JULY 9TH.

Sanatorium Benefit in Walsall.

Replying to Mr. COOPER, Mr. MASTERMAN said: The number of applicants for sanatorium benefit in Walsall from July 15th, 1912, to April 30th last was 94, of whom three were ineligible for benefit. The number who received treatment was 86, of whom 44 were treated in sanatoria and 42 at home.

BOOKS, ETC., RECEIVED.

ARNOLD, EDWARD, London.

A Text-book of Surgery for Dental Students. By G. Percival Mills, M.B., B.S. Lond., F.R.C.S., Surgeon to the Royal Orthopædic and Spinal Hospital, Birmingham, and Humphrey Humphreys, M.B., Ch.B., B.D.S. Birm., L.D.S. Eng., Demonstrator in Dental Surgery at the Birmingham Dental Hospital. Price 12*s.* 6*d.* net.

BAILLIÈRE, TINDALL, AND COX, London.

Aids to Surgery. By Joseph Cunning, M.B., B.S., F.R.C.S. Eng., Surgeon to the Royal Free Hospital. Third edition. Price, paper, 3*s.* 6*d.* net; cloth, 4*s.* net.

Acute Abdominal Diseases, including Abdominal Injuries and the Complications of External Hernia. By Joseph E. Adams, M.B., M.S. Lond., F.R.C.S. Eng., Senior Assistant Surgeon, East London Hospital for Children; and Maurice A. Cassidy, M.A., M.D., B.C. Cantab., F.R.C.P. Lond., Physician with charge of Out-patients, St. Thomas's Hospital. Price 12*s.* 6*d.* net.

BALE (JOHN), SONS, AND DANIELSSON, LIMITED, London.

Field Service Notes for R.A.M.C. By Major T. H. Goodwin, R.A.M.C. Price 2*s.* 6*d.* net.

The Hunterian Oration. Delivered at the Royal College of Surgeons, 1913. By Sir Rickman J. Godlee, Bart, F.R.C.S., B.A., M.S., M.D. Dub., Hon. Causâ., Hon. Surgeon in Ordinary to the King. Price 2*s.* 6*d.* net.

BLACK, ADAM, AND CHARLES, London.

The First Principles of Evolution. By S. Herbert, M.D. Vienna, M.R.C.S. Eng., L.R.C.P. Lond. Price 7*s.* 6*d.* net.

BURNHAM, FREDERICK W. E., Winnipeg, Manitoba.

Hæmocytes and Hæmic Infections. A Handbook for Students and Practitioners. By Frederick W. E. Burnham, M.D., C.M. First edition. Price 25*s.*

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE, 2, Jackson-place, Washington, D.C., U.S.A.

Carnegie Endowment for International Peace. Founded December Fourteenth, 1910. Year Book for 1912. Price not stated.

CHURCHILL, J. AND A., London.

Lang's German-English Dictionary of Terms used in Medicine and the Allied Sciences. Second edition. Edited and revised by Milton K. Meyers, M.D., Neurologist to the Jewish Hospital Dispensary and to St. Agnes Hospital Dispensary, Philadelphia, &c. Price 18*s.* net.

FIFIELD, A. C., 13, Clifford's Inn, London, E.C.

The Further Evolution of Man. A Study from Observed Phenomena. By W. Hall Calvert, M.D. Price 5s. net.

GREEN, WILLIAM, AND SONS, Edinburgh and London.

Gynecological Diagnosis and Pathology. By A. H. F. Barbour, M.D., LL.D., F.R.C.P. Ed., Lecturer on Gynecology in the University of Edinburgh, Gynecologist to the Edinburgh Royal Infirmary, and B. P. Watson, M.D., F.R.C.S. Edin., Professor of Obstetrics and Gynecology in the University of Toronto. Price 7s. 6d. net.

HIRZEL, S., Leipzig.

Handbuch der Hygiene. Herausgegeben von Prof. Dr. M. Rubner, Geh. Medizinalrat, Berlin, Prof. Dr. M. v. Gruber, Obermedizinalrat, München, und Prof. Dr. M. Ficker, Berlin. III. Band, 2. Abteilung. Die Infektionskrankheiten. Price, paper, M. 24; bound, M.27.

Die Kinder der Tuberkulösen. Von Dr. med. Wilhelm Weinberg, Sanitätsrat in Stuttgart. Mit einem Begleitwort von Obermedizinalrat Professor Dr. Max von Gruber in München. Price M.5.

JOURNAL OF NERVOUS AND MENTAL DISEASE PUBLISHING COMPANY, New York.

Nervous and Mental Disease Monograph Series, No. 16. Acute Poliomyelitis (Heine-Medin's Disease). By Dr. Ivan Wickman, of Stockholm. Authorised English Translation by Dr. J. Wm. J. A. M. Maloney, F.R.S. Edin. Price $3.

KARGER, S., Berlin.

Operationen am Ohr. Die Operationen bei Mittelohreiterungen und ihren intrakraniellen Komplikationen. Für Aerzte und Studierende. Von Dr. B. Heine, a.o. Professor und Direktor der k. Universitäts-Ohrenklinik und Ohrenpoliklinik in München. Dritte, neubearbeitete Auflage. Price, paper, M.7.60; bound, M.8.80.

Lehrbuch der Nervenkrankheiten für Arzte und Studierende. Von Prof. Dr. H. Oppenheim in Berlin. Sechste, wesentlich vermehrte und verbesserte Auflage. Bd. I. and II. Price, paper, M.52; bound, M.56.

LEEDS LOCAL MEDICAL COMMITTEE and THE LEEDS LOCAL PHARMACEUTICAL COMMITTEE (Jointly), Leeds.

Pharmacopœia Leodiensis. The Leeds Pharmacopœia. Price 1s. net.

LEWIS, H. K., London, 136, Gower-street, London, W.C.

Lewis's Pocket Case Book. Designed for the Use of Students and Practitioners. Price 1s. 6d. net.

SCIENTIFIC PRESS, LIMITED, London.

The Nursing of Nervous Patients. By Edwin L. Ash, M.D. Lond. Price 2s. 6d. net.

Medical Electricity and Light. An Elementary Textbook for Nurses. By Ettie Sayer, M.B., B.S. Lond. Price 3s. 6d. net.

Diet in Dyspepsia and other Diseases of the Stomach and Bowels. An Elementary Treatise on their Dietetic and Hygienic Management. By William Tibbles, M.D., L.R.C.P., M.R.C.S., L.S.A., Medical Officer of Health for Melton Mowbray Rural District. Price 2s. 6d. net.

SCOTT, GREENWOOD AND SON, "The Oil and Colour Trades Journal" Offices, 8, Broadway, Ludgate Hill, London, E.C.

Disinfection and Disinfectants. By M. Christian, Physician in Chief, Royal Institute for Infectious Diseases, Berlin. Translated from the German by Charles Salter. Price 5s. net.

THACKER, SPINK, AND CO., Calcutta. THACKER, W., AND CO., 2, Creed-lane, London.

Protective Inoculation against Cholera. By W. M. Haffkine, Bacteriologist with the Government of India. Price Rs. 3.

"THE CHEMIST AND DRUGGIST," 42, Cannon-street, London, E.C.

Provincial Hospital Pharmacopœias. Comprising the Formulas for Medicinal Preparations used in Twenty-five Hospitals and Infirmaries in Great Britain. (Reprinted with additions from The Chemists' and Druggists' Diaries, 1912 and 1913.) Price 2s. 6d. net.

UNIVERSITY OF LONDON PRESS, London. Published for the University of London Press, Limited, by Hodder and Stoughton and Henry Frowde.

London Medical Publications. Applied Pathology. Being a Guide to the Application of Modern Pathological Methods to Diagnosis and Treatment. By Julius M. Bernstein, M.B. Lond., D.P.H. Camb., M.R.C.P., Assistant Physician (late Pathologist) to the West London Hospital. Price 10s. 6d. net.

UNIVERSITY PRESS, 57, Ashton-street, Liverpool. CONSTABLE AND CO., LIMITED, London.

Anaphylaxis. By Charles Richet, Professor in the Faculty of Medicine, Paris. Authorised Translation by J. Murray Bligh, M.D., Medical Registrar to the Liverpool Royal Infirmary. With a Preface by T. R. Bradshaw, B.A., M.D., F.R.C.P., Senior Physician to the Liverpool Royal Infirmary. Price 3s. 6d. net.

URBAN UND SCHWARZENBERG, Berlin und Wien.

L. Landois' Lehrbuch der Physiologie des Menschen mit besonderer Berücksichtigung der praktischen Medizin. Dreizehnte Auflage. Bearbeitet von Dr. R. Rosemann, o.ö. Professor der Physiologie und Direktor des physiologischen Instituts der Westfälischen Wilhelms-Universität zu Münster. Zweiter Band. Price, paper, M.9; bound, M.10.

Medizinische Terminologie. Ableitung und Erklärung der gebräuchlichsten Fachausdrücke aller Zweige der Medizin und ihrer Hilfswissenschaften. Von Dr. Walter Guttmann, Oberstabsarzt z.d. an der Kaiser Wilhelms-Akademie für das Militärärztliche Bildungswesen in Berlin. Sechste und siebente umgearbeitete und erweiterte Auflage. Price M.1[illegible]

Lehrbuch der Nervenkrankheiten für Studierende und praktische Aerzte, in 30 Vorlesungen. Von Robert Bing, Dozent für Nervenheilkunde an der Universität Basel. Price, paper, M.18; bound, M.20.

Beihefte zur Klinik für psychische und nervöse Krankheiten. Erstes Heft. Ferdinand August Maria Franz von Ritgen. Ein Beitrag zur Geschichte der Medizin und Naturphilosophie. Von Dr. Eduard Wolf, Giessen. Price M.1.50; to subscribers, M.1.20.

Die Serodiagnose der Syphilis und ihre Bedeutung für Diagnose, Therapie und Prognose. Von Dr. Rudolf Müller, Assistent der Klinik für Syphilidologie und Dermatologie (Prof. E. Finger) in Wien. Price, paper, M.7; bound M.8.50.

Sammlung dervon der Nothnagel-Stiftung veranstalteten Vorträge. Heft I. Der Kohlehydratstoffwechsel der Leber. Von Prof. Dr. Franz Hofmeister, Direktor des Physiologisch-chemischen Instituts der Universität in Strassburg i.E. Price M.1.80.

Spätpsychosen katatoner Art. Eine klinische Studie. Von Dr. med. Maurycy Urstein, Warschau. Price, paper, M.16.; bound, M.18.

Ren Juvenum. Beiträge zur Kenntnis der orthostatischen Albuminurie. Von Dr. Hanns Pollitzer, Assistent der Klinik. Price, paper, M.7.; bound, M.9.

VAN ROSSEN, F., Jan Luijkenstraat, 31, Amsterdam.

Petrus Camper. Ueber die Anatomie und die Krankheiten der Augen. Nach der Lateinischen Handschrift uebersetzt. (Opuscula Selecta Neerlandicorum de Arte Medica. Fasciculus Secundus quem Curatores Miscellaneorum quae vocantur Nederlandsch Tijdschrift voor Geneeskunde collegerunt et ediderunt. Petrus Camper. De Morbis Oculorum.) Price not stated.

VIGOT FRÈRES, Paris.

Technique Microscopique d'après Böhm et Oppel. Par Étienne de Rouville, Docteur ès Sciences. Cinquième Édition, revue et considérablement augmentée. Price Fr.8.

Le Mal de Tête, ses différentes Formes, Nature, Diagnostic et Traitement. Par Dr. Siegmund Auerbach, Directeur de la Policlinique pour les Maladies Nerveuses à Francfort-sur-le-Mein. Traduction Française par le Dr. A. Françon, Médecin Consultant à Aix-les-Bains (Savoie). Price Fr.3.50.

Bossuet Anatomiste et Physiologiste. Par M. le Prof. A. F. Le Double, de Tours, Associé National de l'Académie de Médecine, Lauréat de l'Institut (Académie des Sciences). Préface en vers par M. Horace Hennion. Price Fr.5.

Médecins et Médecine en Éthiopie. Par le Docteur Mérab, Médecin particulier du Négus Ménélik II. Price Fr.4.

WARWICK AND YORK, Inc., Baltimore, U.S.A.

Educational Psychology Monographs. Edited by Guy Montrose Whipple. No. 7. Experimental Studies of Mental Defectives. A Critique of the Binet-Simon Tests and a Contribution to the Psychology of Epilepsy. By J. E. Wallace Wallin, Ph.D., Director of Psychological Clinic, School of Education, University of Pittsburgh. Price $1.25.

WRIGHT, JOHN, AND SONS, LIMITED, Bristol. SIMPKIN, MARSHALL, HAMILTON, KENT, AND CO., LIMITED, London.

"First Aid" to the Injured and Sick. An Advanced Ambulance Handbook. By F. J. Warwick, B.A., M.B. Cantab., M.R.C.S., L.S.A., A.K.C. Lond., Major R.A.M.C.T., and A. C. Tunstall, M.D., C.M., F.R.C.S., L.R.C.P. Ed., Major R.A.M.C.T. Rtd. Eighth edition, revised. 80th thousand. Price, paper, 1s. net; leather, 2s. 6d. net.

Manual for Women's Voluntary Aid Detachments. By P. C. Gabbett, M.R.C.S., Lieut.-Col. I.M.S. (Retired). Second edition. Revised and enlarged. Price 1s. net.

Our Outsides: and What they Betoken. A Summary. By W. T. Fernie, M.D. Price 4s. 6d.

Our Baby: for Mothers and Nurses. By Mrs. J. Langton Hewer, Certified Midwife; late Hospital Ward Sister. Fourteenth edition, illustrated. Extensively revised, and with an Additional Chapter, "Baby in the Tropics." (100th Thousand.) Price, boards, 1s. 6d. net; leather, 2s. 6d. net.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

AITKEN, ROBERT YOUNG, M.D. Glasg., F.R.C.S. Eng., has been appointed one of the Medical Referees under the Workmen's Compensation Act, 1906, for County Court Circuit No. 4, to be attached more particularly to the Blackburn and Darwen, Haslingden and Accrington, Bacup and Rawtenstall, and Clitheroe County Courts.

CHAPPLE, HAROLD, M.B., M.C. Cantab., has been appointed Obstetric Surgeon to Guy's Hospital.

DEPREE, H. T., M.B., B.C. Cantab., has been appointed Honorary Anæsthetist to Guy's Hospital.

EDINGTON, G. H., M.D. Glasg., D.Sc., F.R.F.P.S. Glasg., has been appointed Visiting Surgeon to the Western Infirmary, Glasgow.

FAWCETT, JOHN, M.D. Lond., F.R.C.P. Lond., has been appointed Physician to Guy's Hospital.

FINLAY, D. E., M.B., B.S. Lond., has been appointed Certifying Surgeon under the Factory and Workshop Acts for the Gloucester District of the county of Gloucester.

HUNT, G. H., M.B., B.Ch. Oxon., has been appointed Fifth Assistant Physician to Guy's Hospital.

LANCASTER, H. F., M.D. Brux., L.R.C.P. Lond., M.R.C.S., has been appointed Consulting Anæsthetist to Guy's Hospital.

SOAMES, RALPH M., M.B. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed Tuberculosis Medical Officer for the county of Surrey.

TRETHOWAN, W. H., M.B., M.S. Lond., has been appointed Orthopædic Surgeon to Guy's Hospital.

WYARD, STANLEY, M.D., B.S. Lond., M.R.C.P. Lond., has been appointed Pathologist to the Victoria Hospital for Children.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ABERYSTWYTH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House Surgeon and Secretary. Salary £175 per annum, with board and lodging.

BANBURY, HORTON INFIRMARY.—House Surgeon. Salary £100 per annum, with board and residence.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House Surgeon. Salary £80 per annum, with board and laundry.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House Surgeon. Salary £75 per annum, with board, rooms, &c.

BIRMINGHAM, RUBERY HILL ASYLUM.—Junior Assistant Medical Officer. Salary £200 per annum, with apartments, board, laundry, &c.

BIRMINGHAM, SALTERLEY GRANGE SANATORIUM FOR CONSUMPTION, near Cheltenham.—Resident Medical Officer. Salary £300 per annum, with board, &c.

BIRMINGHAM UNION, DUDLEY-ROAD INFIRMARY.—Second Assistant Medical Officer. Salary £160 per annum. Also Third Assistant Medical Officer. Salary £150 per annum. Each with apartments, rations, laundry, and attendance.

BOLTON INFIRMARY AND DISPENSARY.—Third House Surgeon. Salary £90 per annum, with apartments, board, and attendance.

BRADFORD CITY.—Resident Medical Officer at Bierley Hall Hospital for Consumptives. Salary £150 per annum, with board and residence.

BRADFORD CITY INFANT CONSULTATIONS.—Female Non-resident Assistant Medical Officer. Salary £300 per annum.

BRENTWOOD, ESSEX COUNTY ASYLUM.—Two Assistant Medical Officers. Salary in each case £160 per annum, with board, &c.

BRIDGWATER HOSPITAL.—House Surgeon, unmarried, for six months. Salary at rate of £100 per annum, with board, lodging, and washing.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House Surgeon for six months. Salary £75 per annum, with apartments, board, and laundry.

BURNLEY, COUNTY BOROUGH OF.—Assistant to Medical Officer of Health. Salary £250 per annum.

CAMBRIDGE, ADDENBROOKE'S HOSPITAL.—House Surgeon and Second House Surgeon, each for six months. Salary £80 each per annum, with board, residence, and laundry.

CANCER HOSPITAL, Fulham-road, S.W.—Senior and Junior House Surgeons for six months. Salary £80 and £70 per annum respectively.

CANTERBURY, KENT COUNTY ASYLUM, Chartham.—Junior Assistant Medical Officer, unmarried. Salary £220 per annum, with apartments, attendance, laundry, &c.

CANTERBURY MENTAL HOSPITAL, Canterbury.—Assistant Medical Officer, unmarried. Salary £160 per annum, with board, lodging, washing, and attendance.

CARDIFF, KING EDWARD VII.'S HOSPITAL.—House Surgeon for six months. Salary £30, with board, residence and laundry.

CARLISLE DISPENSARY.—Resident Medical Officer. Salary £150 per annum, with apartments.

CHARING CROSS HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board and residence.

CHESTER, COUNTY PALATINE OF.—Tuberculosis Officer. Salary £500 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House Physician. Salary £90 per annum, with board, apartments, and laundry.

CLIFTON, YORK, NORTH RIDING ASYLUM.—Male or Female Second Assistant Medical Officer. Salary £200 per annum, with board, apartments, washing, and attendance.

COBHAM, SCHIFF HOME OF RECOVERY, Resident Surgical Officer for six months. Salary £100, with board, lodging, and washing.

COLCHESTER, ESSEX COUNTY HOSPITAL.—House Physician. Salary £80 per annum, with board, residence, and washing.

COVENTRY AND WARWICKSHIRE HOSPITAL, Coventry.—House Physician and Junior House Surgeon. Salary £90 per annum each, with residence, board, and laundry.

DENBIGH, DENBIGHSHIRE INFIRMARY.—House Surgeon. Salary £110 per annum, with board, residence, and washing.

DEVON AND CORNWALL SANATORIUM, South Brent.—Locum Tenens for four weeks. Salary 4 guineas per week, with hospitality, &c.

DEVONPORT, ROYAL ALBERT HOSPITAL.—Assistant House Surgeon, unmarried. Salary at rate of £75 per annum, with board and laundry.

DEWSBURY AND DISTRICT GENERAL INFIRMARY.—House Surgeon. Salary £120 per annum, with board, residence, and laundry.

DOWN DISTRICT LUNATIC ASYLUM, Downpatrick.—Junior Male Assistant Medical Officer, unmarried. Salary £130 per annum, with apartments, board, washing, attendance, &c.

DUBLIN, PEAMOUNT SANATORIUM, Hazelhatch.—Resident Medical Superintendent. Salary £400 per annum, house and light included.

DUMFRIES AND GALLOWAY ROYAL INFIRMARY.—Assistant House Surgeon. Salary £85 per annum, with board and washing.

DUNDEE ROYAL INFIRMARY.—House Physicians and House Surgeons.

EAST SUFFOLK, ADMINISTRATIVE COUNTY OF.—Two Assistants to County Medical Officer of Health. Salary £300 per annum.

EAST SUSSEX COUNTY COUNCIL, EDUCATION COMMITTEE.—Senior Assistant and Deputy School Medical Officer, and Junior Assistant School Medical Officer. Salary of former £300 per annum, and of latter £250 per annum.

ENNISKILLEN, FERMANAGH COUNTY HOSPITAL.—House Surgeon. Salary £72 per annum.

EXETER, ROYAL DEVON AND EXETER HOSPITAL.—Assistant House Surgeon for six months. Salary at rate of 100 guineas per annum, with board, apartments, and washing.

FOLKESTONE, ROYAL VICTORIA HOSPITAL.—Resident House Surgeon. Salary £100 per annum, with apartments, board, and laundry.

GLOUCESTER, GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Physician on the Acting Medical Staff. Also Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and washing.

HALIFAX ROYAL INFIRMARY.—Second House Surgeon, unmarried. Salary £100 per annum, with residence, board, and washing.

HARRIS, PARISH OF.—Medical Officer and Public Vaccinator. Salary £120 per annum.

HASTINGS, EAST SUSSEX HOSPITAL.—Assistant House Surgeon. Salary at rate of £70 per annum, with residence, board, and washing.

HEREFORD COUNTY AND CITY ASYLUM.—Assistant Medical Officer, unmarried. Salary £155 per annum, all found except stimulant.

HERTFORD, COUNTY OF.—Assistant Tuberculosis Officer. Salary £300 per annum.

HITCHIN, THREE COUNTIES ASYLUM.—Junior Assistant Medical Officer. Salary £200 per annum, with board, apartments, washing, and attendance.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physician for six months. Salary 30 guineas.

IPSWICH, EAST SUFFOLK AND IPSWICH HOSPITAL.—Second House Surgeon. Salary £80 per annum, with board, residence, and laundry.

JARROW BOROUGH EDUCATION COMMITTEE.—School Medical Officer. Salary £250 per annum.

JOHANNESBURG, JOHANNESBURG HOSPITAL, South Africa.—Non-resident X-Ray Medical Officer. Salary £750 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer, unmarried. Salary £100 per annum, with board, residence, &c.

LEEDS GENERAL INFIRMARY.—Resident Medical Officer at Ida and Robert Arthington Hospitals. Salary £60 per annum. Ophthalmic House Surgeon. Salary £50 per annum. Also Two House Physicians without salary, but all with board, residence, and laundry.

LEICESTER, LEICESTERSHIRE AND RUTLAND LUNATIC ASYLUM, Narborough, near Leicester.—Junior Assistant Medical Officer, unmarried. Salary £200 per annum, with apartments, board, and washing.

LINCOLN MENTAL HOSPITAL, The Lawn, Lincoln.—Assistant Medical Officer, unmarried. Salary £150 per annum, with board, &c.

LIVERPOOL STANLEY HOSPITAL.—House Surgeon. Salary £75 per annum, with board, residence, and laundry.

LIVERPOOL WORKHOUSE HOSPITAL, Brownlow-hill.—Assistant Medical Officer. Salary £100 per annum, with apartments, &c.

LONDON LOCK HOSPITAL.—FEMALE HOSPITAL: House Surgeon and Assistant House Surgeon. Salary £100 and £80 per annum respectively, with board, lodging, and washing.

MAIDSTONE, KENT COUNTY ASYLUM.—Fourth Assistant Medical Officer, unmarried. Salary £200 per annum, with quarters, attendance, washing, &c.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Resident Medical Officer for In-patient Department, Bowden, Cheshire. Salary £100 per annum, with board, apartments, washing, &c.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Surgeon.

MILLER GENERAL HOSPITAL FOR SOUTH-EAST LONDON, Greenwich-road, S.E.—Resident Medical Officer. Salary £150 per annum, with board, attendance, and laundry.

NEWARK-UPON-TRENT HOSPITAL.—Resident Medical Officer, unmarried. Salary £100 per annum, with board, lodging, and laundry.

NEWCASTLE-UPON-TYNE, UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—Demonstrator of Anatomy. Salary £200 per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Resident Medical Officer. Salary at rate of £100 per annum, with board, residence, and laundry.

NORTHAMPTON, ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Third Assistant Medical Officer. Salary £200 per annum, with apartments, board, and washing.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House Surgeon. Salary £100 per annum, with board, residence, and laundry.

PLYMOUTH, SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House Physician for six months. Salary £75 per annum, with board, residence, and washing.

PRESTON COUNTY ASYLUM, Whittingham, Lancs.—Assistant Medical Officer, unmarried. Salary £200 per annum, with board, apartments, and washing.

ROCHESTER, ST. BARTHOLOMEW'S HOSPITAL.—Resident House Physician for six months. Salary at rate of £110 per annum, with board, residence, and laundry.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. Salary £100 per annum, with board, lodging, and washing.

ROYAL DENTAL HOSPITAL OF LONDON, Leicester-square, W.C.—Anæsthetist. Salary £50 per annum.

ROYAL EYE HOSPITAL, Southwark, S.E.—Junior House Surgeon for six months. Salary £50 per annum, with board and residence. Also Clinical Assistants.

ROYAL FREE HOSPITAL, London, W.C.—Two Female Assistants to Clinical Pathologist. Salary £50 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—House Physician for six months. Salary at rate of £60 per annum, with board, lodging, and washing.

ROYAL NAVAL MEDICAL SERVICE.—Twenty-five appointments.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand, W.C.—House Surgeon for six months. Salary at rate of £50 per annum, with board, residence, and laundry.

ST. ALBANS, HERTS COUNTY ASYLUM, Hill End.—Second Assistant Medical Officer, unmarried. Salary £200 per annum, with board, lodging, and washing.

ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN, Plaistow, E.—Assistant Resident Medical Officer, unmarried, for six months. Salary at rate of £80 per annum, with board, residence, and laundry.

SALISBURY GENERAL INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum. Also Assistant House Surgeon, unmarried. Salary £50 per annum. Each with apartments, board, and lodging.

SERVIAN GOVERNMENT.—British Surgeons required. Salary at rate of 600 francs a month, with board and lodging.

SHEFFIELD, EAST-END BRANCH OF THE CHILDREN'S HOSPITAL (OUT-PATIENT DEPARTMENT).—House Surgeon. Salary £75 per annum, with board and lodging.

SHEFFIELD, JESSOP HOSPITAL FOR WOMEN.—Assistant House Surgeon, unmarried. Salary £80 per annum, with board, residence, and laundry.

SHEFFIELD ROYAL HOSPITAL.—Assistant House Physician, unmarried. Salary £80 per annum, with board, lodging, and washing.

SHEFFIELD ROYAL INFIRMARY.—Two Resident Medical Officers. Salary £70 per annum, with board and residence.

SOMERSET COUNTY COUNCIL.—Assistant Tuberculosis Officer. Salary £300 per annum.

SOUTH AFRICA, LUNATIC AND LEPER ASYLUM SERVICE.—Three Junior Medical Officers. Salary £280 per annum, with board and lodging.

SOUTHAMPTON, FREE EYE HOSPITAL.—House Surgeon. Salary £100 per annum, with board, lodging, and laundry.

SOUTH SHIELDS, INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House Surgeon. Salary £90 per annum, with residence, board, and washing.

SOUTHWARK UNION, London.—Medical Officer for No. 4 District. Salary at rate of £130 per annum. Also Public Vaccinator for the Second District. Salary at the minimum fees fixed by the Local Government Board.

STAFFORDSHIRE EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary £250 per annum.

STOKE-ON-TRENT, NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—House Surgeon. Salary £100 per annum, with apartments, board, and washing.

STOKE-UPON-TRENT UNION WORKHOUSE AND HOSPITAL, London-road, Newcastle, Staffs.—Assistant Resident Medical Officer, unmarried. Salary £160 per annum, with rations, apartments, and washing.

SUNDERLAND ROYAL INFIRMARY.—House Physician and Two Junior House Surgeons. Salaries £90 per annum, with board, residence, and laundry.

SWANSEA GENERAL AND EYE HOSPITAL.—House Surgeon. Salary £75 per annum, with board, washing, and attendance.

TRURO, ROYAL CORNWALL INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with rooms, board, and washing.

UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL, DEPARTMENT OF BACTERIOLOGY.—Demonstrator.

VICTORIA HOSPITAL FOR CHILDREN, Tite-street, Chelsea, S.W.—House Surgeon for six months. Salary £40, with board, lodging, and laundry.

VIRGINIA WATER, SURREY, HOLLOWAY SANATORIUM HOSPITAL FOR THE INSANE.—Junior Assistant Medical Officer. Salary £200 per annum, with board, lodging, laundry, and attendance.

WAKEFIELD GENERAL HOSPITAL.—Second House Surgeon, unmarried. Salary £120 per annum, with board, lodging, and washing.

WANDSWORTH UNION INFIRMARY, St. John's Hill, near Clapham Junction.—Junior Assistant Medical Officer, unmarried, for six months. Salary at rate of £150 per annum, with board, lodging, and washing.

WARWICK ASYLUM.—Assistant Medical Officer, unmarried. Salary £200 per annum, with board, residence, and laundry.

WEST BROMWICH AND DISTRICT HOSPITAL.—Assistant Resident House Surgeon and Anæsthetist, unmarried. Salary £75 per annum, with board, residence, and washing.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—Senior House Physician. Salary £100 per annum. Junior House Physician. Salary £75 per annum, each with board residence, &c. Also Honorary Dental Surgeon.

WIGAN ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Senior House Surgeon. Salary £120 per annum, with rations, apartments, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House Surgeon. Salary £100 per annum, with board, rooms, and laundry.

WOMEN'S HOSPITAL FOR CHILDREN, 688, Harrow-road.—Honorary Dental Surgeon (Female).

WORCESTER GENERAL INFIRMARY.—House Physician. Salary £120 per annum, with board, residence, and washing.

THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of a vacancy for a Certifying Surgeon under the Factory and Workshop Acts at Fermoy in the county of Cork.

Births, Marriages, and Deaths.

BIRTHS.

EVANS.—On July 3rd, at Floriana, Malta, to Ethel, wife of Major C. R. Evans, R.A.M.C., of a son.

MARRIAGES.

LANGMEAD—GRAY.—On July 3rd, at St. Ethelburga's, Bishopsgate Within, by the Rev J. F. Cobb, D.D., Frederick Langmead, M.D., F.R.C.P., of 53, Queen Anne-street, Cavendish-square, W., son of Mr. and Mrs. William Langmead, Sunnyside, Littlehampton, to Olive, youngest daughter of the Rev. Thomas T. Gray, Senior Fellow, Trinity College, Dublin, of 35, Trinity College, Dublin, and Carn Park, co. Westmeath.

MACNALTY—DE WESSELOW.—On July 1st, at St. Martin's Church, Epsom, Arthur Salusbury MacNalty, M.D., M.A., M.R.C.S., to Valentine Dorothea Vaughan, only daughter of the late Rev. C. H. Simpkinson de Wesselow and of Mrs. Simpkinson de Wesselow.

POWELL—BARRASS.—On July 2nd, at St. Peter's, Harrogate, Major John Powell, R.A.M.C., Egyptian Army, Cairo, to Elsie Kate Barrass, elder daughter of the late Matthew Barrass, Killingworth, Northumberland.

DEATHS.

MCCASKIE.—On July 7th, at Southport, Norman McCaskie, aged 64 years, late of 12, Sydney-place, Onslow-square, S.W.

GREAT-REX.—On June 30th, at Stoke-on-Trent, Adolphus Burnell Great-Rex, M.D., J.P., aged 72 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE WORLD'S HIGHEST DEATH-RATE.

IN a report on the affairs of the Republic of Bolivia Mr. G. T. Maclean, British Consul, observes that the most serious problem which faces the State is the lack of immigration, combined with the excessive death-rate. The death-rate for La Paz (the seat of Government, with a population of 78,856) in 1912 was stated to be 38 per 1000, while the city of Cochabamba (population 24,512) has the unenviable reputation of possessing perhaps the highest death-rate of any city in the world —75 per 1000. This extreme mortality is due not so much to climatic or other natural causes as to the lack of knowledge among the lower classes of the most elementary rules of hygiene—a fact which is corroborated by the percentage of infant mortality, about 40 per cent. of the deaths being children under 5 years of age. Plans are now being drawn up for the construction of drainage works for the cities of La Paz and Cochabamba, and efforts are also being made to instil into the Indian some of the more essential rules of domestic sanitation.

UNNEIGHBOURLY.

To the Editor of THE LANCET.

SIR,—A has conducted a practice in a particular house for 18 years and is obliged to leave it as it has become too small for the requirements of his family and the landlord refuses to enlarge it.

B and C, a firm of surgeons with a surgery not more than 100 yards away, but in a different street, and residences at different arts of the town, take the house about to be vacated by A without consulting him, for the purpose of putting in an assistant there. I should like to know if this is legitimate, and, if not, has A any remedy against B and C?

I am, Sir, yours faithfully,

July 8th, 1913. A SUBSCRIBER.

*** The action of B and C was unneighbourly, but not illegal. A has no remedy at law, and the General Medical Council, whatever they might think of B and C's conduct, would not, we believe, adjudge it "infamous in a professional sense."—ED. L.

YELLOW FEVER IN CHILE.

THE Acting British Consul at Antofagasta, in the Republic of Chile, writes in his annual report: "The very insanitary conditions of this town have again been the cause of an abnormal amount of sickness. Epidemics of small-pox and typhoid fever as usual have been experienced, and cases of plague are never absent, while dysentery has had its fair toll, to say nothing of numerous other diseases. In the neighbouring port of Tocopilla a severe outbreak of yellow fever took place during the months of April and May, 1912, and out of 938 persons attacked over 330 died. It was supposed to have been brought down from Guayaquil by a sailor suffering from the disease, who was taken into the hospital and treated as for typhoid fever. Fortunately, the Longitudinal Railway between this port and that of Tocopilla was completed, and it was thus possible to forward supplies and medical comforts to the sanitary camps established on the higher altitude and also to the port. Matters were considerably aggravated at first by the incredulity on the part of the authorities in the south as to the outbreak being really yellow fever, and the situation was very precarious, and was only saved in part by private help in the way of stores and medical aid from this port."

SUNDAY-SCHOOLS AND INFECTIOUS DISEASE.

To the Editor of THE LANCET.

SIR,—It seems more than probable that there are many instances of children being sent to Sunday-school when they are not allowed to attend day-school owing to reasons connected with infectious illness, from which they or some other children or persons in their family or house are suffering. I suppose that when there is more than one family in a house infectious illness in any other child or person in the entire house, and not merely in one family, prevents any child in that house attending day-school.

The Government memorandum on the exclusion of children from day-school speaks of the local authorities inviting the assistance of managers of Sunday-schools in these matters as they affect Sunday-schools, and I hope that authorities themselves and all who are at all in touch with them will earnestly consider the dangers arising from this source, and how the efforts put forward on weekdays in many cases may be rendered ineffective by what is taking place on Sundays.

I am, Sir, yours faithfully,

July 3rd, 1913. S.

VEJLEFJORD SANATORIUM ANNUAL REPORT.

IN his report for 1912 Professor Saugman gives an account of the results obtained not only in the year 1912, but also in the years 1900, 1901, 1902, 1909, and 1910, and analysed in January, 1913. At this date he was able to trace all the patients treated in the first period, and all but 2 per cent. of the patients treated in 1909 and 1910. Of the 138 patients discharged in 1912, 12 per cent. were in the first stage,

25 per cent. in the second stage, and 63 per cent. in the third stage of pulmonary tuberculosis, according to Turban's original classification. Many of the patients were febrile on admission, and the average percentage of patients confined to bed during 1912 was 22. The average duration of treatment was 228 days. While, therefore, the majority of the patients were in an advanced stage of the disease, the prolonged stay at the sanatorium enabled many to become afebrile and make satisfactory progress. Of the patients in the third stage of the disease, 26 were treated by artificial pneumothorax and 13 were found unfitted for this treatment on account of pleural adhesions. Professor Saugman expresses continued satisfaction with this treatment, but with regard to the treatment with copper solution, as advocated by Finkler, and practised at Vejlefjord in 12 cases, no definite verdict is given. The results for 1912 show improvement in 81 per cent. of the total. The analysis of patients treated from 2 to 12 years earlier is of special value, as the period of observation is long and the numbers dealt with are considerable. After an interval of 10 to 12 years the mortality among patients treated in the first stage of the disease was only 7·6 per cent., and 80 per cent. were fit for work. Of the patients treated in the second stage the mortality in 8 to 9 years was 25 per cent., and 75 per cent. were fit for work. In the third stage the mortality was as high as 40 per cent. after 2 years, and rose yearly by 6·5 per cent., till it reached 74 per cent. 8 years after treatment. The patients' capacity for work in the same class fell from 43 per cent. after 2 years to 17 per cent. after 8 years. Taking all the stages together, 60 per cent. of the patients were fit for work 2 years after treatment. During the following 10 years this figure fell gradually, till 12 years after treatment only 37 per cent. were fit for work. The mortality for all stages of the disease rose from 27 per cent. after 2 years to 54 per cent. after 9 years. It must be borne in mind that the majority of patients when admitted to Vejlefjord Sanatorium are in an advanced stage of the disease.

THE WOMEN'S HOLIDAY FUND.

To the Editor of THE LANCET.

SIR,—We hope your readers will generously respond this year to our appeal for help to enable poor London women to get a short holiday away from work and family cares. The society, which has been in existence for 19 years, sends poor women of the working classes, varying from 21 to 65 years of age, to the sea or country for one or two weeks in the summer. The women all pay a share of the cost themselves. The benefit to health is very great, and the holiday is always intensely enjoyed. One house, in charge of a trained nurse, is devoted to mothers and babies, each woman taking one child under 3 years of age. In 1912, 1163 women were sent away, and the number of applications increases each year. The fund works in every part of London, and benefits all who need its help. Subscriptions and donations are urgently needed to supplement the women's payments, and will be gratefully acknowledged by the Secretary, Miss Crawford, 76, Denison House, Vauxhall Bridge-road, London, S.W. We are, Sir, yours faithfully,

A. F. LONDON.
BERNARD VAUGHAN.
J. SCOTT LIDGETT.
CHRISTIANA S. GREGORY
(Chairman of Executive Committee).

MEDICAL AND CONVALESCENT HOMES.

THE second edition of a useful little publication, "The List of Convalescent Homes and Sanatoria Receiving London Patients" (London: Convalescent Homes Association, 14, Victoria-street, S.W. 1913. Pp. 38. Price 1s.), has now been issued. It contains full particulars regarding the terms of admission to various medical and surgical homes for men, women, and children requiring convalescent treatment, together with the addresses to which application should be made.

We have also received Binnie's "Medical Homes for Private Patients" for 1913, published by the Scientific Press, Limited, previous editions of which have been noticed in our columns. It contains much useful information for the practitioner to enable him to ascertain quickly what private homes, sanatoriums, or health resorts are suitable for his particular case. We still note the presence of an objectionable feature to which we have previously referred—viz., a list of consulting physicians, surgeons, and specialists. As we have already stated, for the public such lists may be misleading, for the medical profession they are unnecessary.

AN UNTRUE CIRCULAR.

To the Editor of THE LANCET.

SIR,—May I ask your aid in bringing to the notice of the public the fact that certain persons who represent themselves as agents of the Helping Hand Legal Assistance Syndicate (late Red Cross) are obtaining money by an improper use of the name of this hospital? These persons are in the habit of calling at houses, particularly in the poorer districts, and presenting a circular issued by the above-named society to the effect that the syndicate are subscribers to St. Bartholomew's Hospital. They then sell tickets at 3*d.* each, which they state will entitle the holder to treatment at this hospital. This statement is quite untrue, and it is not a fact that the Helping Hand Legal Assistance Syndicate are, or ever have been, subscribers to this hospital. I have in my possession a letter from the secretary undertaking to withdraw the circular above referred to; but as I find it is still in use, I desire to make it quite clear that the persons who represent themselves as the agents of the syndicate have no connexion of any kind with this hospital.

I am, Sir, yours faithfully,

THOMAS HAYES, Clerk to the Governors.

St. Bartholomew's Hospital, July 7th, 1913.

A POCKET CASE BOOK.

Lewis's Pocket Case Book (London: H. K. Lewis, Gower-street, W.C.), which has been designed for the use of students and practitioners, presents several features which will commend it. It is neatly bound in cloth, measures 8 in. by 5 in., and is arranged for 25 cases. To each case four pages are allotted; the first for personal particulars and family history; the second for present condition, with diagrams for marking physical signs; the third for diagnosis, prognosis, treatment, and progress; and the fourth is reserved for a miniature temperature chart, with extra space for recording treatment. It is a handy and useful book.

S. K. N.—To a given weight of wheaten flour add half its weight of water and make into a dough. Work the dough between the fingers in a stream of running water to wash out the starch, holding the mass over a muslin screen. Continue until a sticky plastic ball remains, which is fairly pure gluten, returning to it any particles caught in the screen.

ERRATUM.—In our review of "Burdett's Hospitals and Charities" in THE LANCET of July 5th the price was given as 10*s.* net. The correct price of this book is 10*s.* 6*d.* net.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies-street, W.C.

MONDAY.—4 P.M., Dr. J. L. Bunch: Clinique (Skin). 5.15 P.M., Lecture:—Sir W. A. Lane: Chronic Intestinal Stasis.
TUESDAY.—4 P.M., Dr. J. Taylor: Clinique (Medical). 5.15 P.M., Lecture:—Dr. T. G. Stevens: Tubal Gestation and its Results.
WEDNESDAY.—4 P.M., Mr. C. Ryall: Clinique (Surgical). 5.15 P.M., Lecture:—Mr. E. M. Little: Congenital Club-foot.
THURSDAY.—4 P.M., Dr. J. Collier: Clinique (Medical). 5.15 P.M., Lecture:—Dr. R. D. Maxwell: Gynæcological Emergencies.
FRIDAY.—4 P.M., Mr. W. Stuart-Low: Clinique (Ear, Nose, and Throat).

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.

MONDAY.—Out-patient Demonstrations:—10 A.M. Dr. Singer: Medical. Mr. H. Curtis: Surgical. 12 noon, Mr. G. N. Biggs: Throat, Nose, and Ear.——2.15 P.M., Mr. W. Turner: Surgery. 3 P.M., Mr. W. Turner: Operations. 3.15 P.M., Sir Dyce Duckworth: Medicine. 4.15 P.M., Mr. R. Lake: Ear and Throat.
TUESDAY.—Out-patient Demonstrations:—10 A.M., Dr. G. Holmes: Medical. Mr. Cole: Surgical. 12 noon, Dr. H. MacCormac: Skin.——2 P.M., Mr. L. McGavin: Operations. 2.15 P.M., Mr. R. Carling: Surgery. 3.15 P.M., Dr. G. Rankin: Medicine.
WEDNESDAY.—Out-patient Demonstrations: 10 A.M., Dr. F. Langmead: Medical. Mr. C. Rowntree: Surgical. 11 A.M., Mr. R. E. Bickerton: Eye.——2 P.M., Mr. L. V. Cargill or Mr. Choyce: Operations. Dr. A. Davies: Pathological Demonstration. 2.15 P.M., Dr. F. Taylor: Medicine. 3.15 P.M., Mr. Cargill: Eye Clinique. 4.30 P.M., Mr. C. C. Choyce: Surgery.
THURSDAY.—Out-patient Demonstrations:—10 A.M., Dr. Singer: Medical. Mr. H. Curtis: Surgical. 12 noon, Mr. G. N. Biggs: Throat, Nose, and Ear.——2 P.M., Mr. R. Carling or Mr. W. Turner: Operations. 3.15 P.M., Dr. R. Wells: Medicine.
FRIDAY.—Out-patient Demonstrations;—10 A.M., Dr. G. Holmes: Medical. Mr. Cole: Surgical. 12 noon, Dr. H. MacCormac: Skin.——2 P.M., Mr. L. McGavin: Operations. 2.15 P.M., Sir John Rose Bradford; Medicine. 3.15 P.M., Mr. L. McGavin: Surgery.
SATURDAY.—Out-patient Demonstrations: 10 A.M., Dr. F. Langmead: Medical. Mr. C. Rowntree: Surgical. 11 A.M., Mr. R. E. Bickerton: Eye.——10 A.M., Col. Barry: Radiography.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.

MONDAY.—10 A.M., Dr. Simson: Diseases of Women. 10.30 A.M., Medical Registrar: Demonstration of Cases in Wards. 12 noon, Dr. Bernstein: Pathological Demonstration. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Armour: Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Dr. Owen: Diseases of the Heart.
TUESDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 10.30 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12 noon, Mr. T. Gray: Demonstration of Fractures, &c. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin. 5 P.M., Lecture:—Dr. Owen: Diseases of the Heart.
WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 11 A.M., Mr. Souttar: Demonstration of Minor Operations. 12 noon, Lecture:—Mr. Souttar: Abdominal Diagnosis. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations. Mr. B. Harman: Diseases of the Eye. Dr. Simson: Diseases of Women. 5 P.M., Lecture:—Dr. Owen: Diseases of the Heart.

THURSDAY.—10.30 A.M., Dr. Simson: Gynæcological Demonstration. 12.15 P.M., Lecture:—Dr. G. Stewart: Neurological Cases. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Armour: Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Dr. Owen: Diseases of the Heart.

FRIDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 10.30 A.M., Lecture:—Dr. Owen: Practical Medicine. 12.15 P.M., Lecture:—Dr. Bernstein: Clinical Pathology. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin. 5 P.M., Lecture:—Dr. Owen: Diseases of the Heart.

SATURDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. B. Harman: Diseases of the Eye. 10.30 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12 noon, Lecture:—Mr. Souttar: Surgical Anatomy of the Abdomen. 2 P.M., Medical and Surgical Clinics. X Rays. Operations.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.

MONDAY.—Clinics:—10.30 A.M., Surgical Out-patient (Mr. E. Gillespie). 2.30 P.M., Medical Out-patient (Dr. T. R. Whipham); Nose, Throat, and Ear (Mr. H. D. Gillies). 3 P.M., Clinical Pathology and Pathological Demonstration (Dr. W. H. Duncan).

TUESDAY.—Clinic; 2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld); Surgical (Mr. Howell Evans); Gynæcological (Dr. A. E. Giles). 3.30 P.M., Medical In-patient (Dr. A. J. Whiting).

WEDNESDAY.—Clinics:—2 P.M., Throat Operations (Mr. Gillies). 2.30 P.M., Children's Out-patient (Dr. T. R. Whipham); Skin (Dr. G. N. Meachen); Eye (Mr. R. P. Brooks). 3 P.M., X Rays (Mr. W. Steuart); Clinical Pathology and Pathological Demonstration (Dr. W. H. Duncan). 5.30 P.M., Eye Operations (Mr. Brooks).

THURSDAY.—2.30 P.M., Gynæcological Operations (Dr. A. E. Giles). Clinics:—Medical Out-patient (Dr. A. J. Whiting); Surgical (Mr. Carson). 3 P.M., Medical In-patient (Dr. G. P. Chappel).

FRIDAY.—2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld): Surgical (Mr. E. Gillespie); Eye (Mr. R. P. Brooks). 3 P.M., Medical In-patient (Dr. R. M. Leslie); Clinical Pathology and Pathological Demonstration (Dr. W. H. Duncan).

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.

WEDNESDAY.—4.30 P.M., Lecture:—Dr. C. Wall: Intrathoracic Hodgkin's Disease.

THE THROAT HOSPITAL, Golden-square, W.

MONDAY.—5.15 P.M., Special Demonstration of Selected Cases.

THURSDAY.—5.15 P.M., Clinical Lecture.

ROTUNDA HOSPITAL POST-GRADUATE COURSES, Dublin.

MONDAY.—10 A.M., Obstetrical Lecture: The Management of Abnormal Presentations (continued). 11 A.M., Examination of Patients and Minor Operations.

TUESDAY.—10 A.M., Major Operations. 4 P.M., Class in Gynæcological Diagnosis.

WEDNESDAY.—10 A.M., Obstetrical Lecture: Abortion. 11 A.M., Examination of Patients and Minor Operations.

THURSDAY.—10 A.M., Major Operations.

FRIDAY.—10 A.M., Gynæcological Lecture: Prolapse of the Uterus. 11 A.M., Examination of Patients and Minor Operations. 4 P.M., Class in Gynæcological Diagnosis.

For further particulars of the above Lectures, &c., see Advertisement Pages.

A DIARY OF CONGRESSES.

WE shall publish this diary from time to time that our readers may have under their hands the dates of the approaching scientific Congresses. It is unnecessary to issue the lists of all these functions week by week, and we propose to make only such gatherings as will occur in the immediate future the subject of regular announcement. The following Congresses, Conferences, and Exhibitions are announced:—

April 26th–Nov. 5th (Ghent).—**International Exhibition.**
May 31st to October (London, Earl's Court).—Imperial Services Exhibition.
May–October (Leipzig).—First International Building Exhibition.
June 11th (opened) (London, Crystal Palace).—Anglo-German Exhibition.
,, 24th (opened) (London, 54a, Wigmore-street).—Historical Medical Museum. (Organised by Mr. Henry S. Wellcome.)
July 7th–12th (Exeter).—Twenty-eighth Congress of the Royal Sanitary Institute.
,, 16th–18th (Oxford, Keble College).—Oxford Ophthalmological Congress.
,, 18th–25th (London).—Imperial Motor Transport Conference.
,, 21st–24th (London).—British Pharmaceutical Conference.
,, 22nd–25th (Brighton).—Eighty-first Annual Meeting of the British Medical Association.

EDITORIAL NOTICES.

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(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 9th, 1913.

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
July	3	30·09	N.E.	0·06	101	67	57	58	58	Raining
,,	4	29·97	N.	...	119	69	56	57	59	Overcast
,,	5	29·97	N.E.	0·13	96	65	54	54	58	Cloudy
,,	6	29·72	S.W.	0·13	91	61	54	53	56	Cloudy
,,	7	29·83	N.	0·26	117	65	52	52	57	Cloudy
,,	8	30·03	N.W.	0·02	117	66	50	49	54	Cloudy
,,	9	30·03	S.W.	...	92	62	54	55	59	Cloudy

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Journal of State Medicine, Archives of Pediatrics, American Journal of Medical Sciences, International Journal of Surgery, Maryland Medical Journal, Annali dell' Istituto Maragliano, Ophthalmoscope, Public Health, Archives de Médecine et Pharmacie Navales, Annales de Gynécologie et d'Obstétrique, Medical Review, Archives de Médecine et de Pharmacie Militaires, Die Therapie der Gegenwart, Archiv für Experimentelle Pathologie und Pharmakologie, Bulletins et Mémoires de la Société de Radiologie Médicale de Paris, Pediatrics, Calcutta Medical Journal, Archiv für Schiffs- und Tropen-Hygiene, Annales de l'Institut Pasteur, Review of Neurology and Psychiatry, West London Medical Journal, Dublin Journal of Medical Science, &c.

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